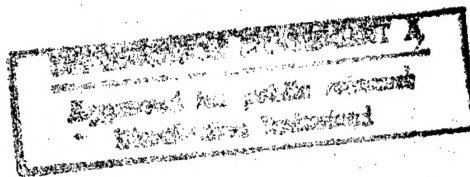


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# USSR Report

AGRICULTURE

No. 1331

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28 May 1982

# USSR REPORT

## AGRICULTURE

No. 1331

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## MAJOR CROP PROGRESS AND WEATHER REPORTING

### TURKMEN, TADZHIK, UZBEK FINE STAPLE COTTON VARIETIES DISCUSSED

Moscow IZVESTIYA in Russian 18 Feb 82 p 3

Article by V. Gavrichkin, G. Dimov and V. Surkov: "Fine Cotton"

Text Expanding the cultivation of the more valuable fine-fibred varieties of cotton -- such is the task assigned to the cotton growers in the "Basic Directions for the Economic and Social Development of the Country During the 1981-1985 Period and for the Period Up To 1990. To harvest the fine-fibred cotton at a higher rate -- such is the unanimous intention of the farmers of Turkmenistan, Tadzhikistan and Uzbekistan.

Orun Gullayev of Murgab, Mintur Butayev of Pyandzh and Khasan Mukhtarov from Termez are obtaining 50 or more quintals of raw cotton per hectare. Moreover, they are growing fine-fibred cotton, a quintal of which is equal in value to two quintals of the usual type of cotton.

The Kolkhoz imeni Karl Marks at Vakhsh, the Kzyl Yulduz Kolkhoz in the Surkhandar'ya Valley and the Leninizm Yely Sovkhoz at Ashkhabad are well known in their respective zones. But in terms of per-hectare yields, they surpass the best record-holders in other valleys -- again because fine-fibred cotton is being placed on the scales here.

For example, let us take three pairs of rayons -- Angorskiy and Termezskiy in Uzbekistan, Shaartuzskiy and Kolkhozabadskiy in Tadzhikistan and Serakhskiy and Bakhardenskiy in Turkmenistan. The first two pairs are ancient centers of farming. The third pair consists of novices. Bakhardenskiy appeared on the map in the zone of the Karakum Canal only recently and its yield is still low. However, all of these rayons occupy a special place in their own republics -- they are specializing entirely in the production of fine-fibred cotton.

There is a difference between medium and fine. In the case of cotton fibre, this difference is great. Medium and fine-fibred cotton differ not only in terms of the shape of the bush, leaf and boll -- these are much larger for medium fibre cotton. Their biological roots are even different. Medium fibre cotton has always been found in Central Asia, whereas fine-fibred cotton has been grown only in the Nile Valley. Its acclimatization and introduction into operations by us were carried out

in the early 1930's. This represented a notable victory for the kolkhoz system and for Soviet science.

It all began with a dozen grains sown by enthusiasts in Tadzhikistan and today the zone of fine-fibred farming includes the Vakhsh Valley, Surkhan-Dar'inskaya and Kashka-Dar'inskaya Oblasts and a portion of Bukharskaya Oblast in Uzbekistan and practically all of Turkmenistan with the exception of Tashauzskaya Oblast. The new branch is served by plant breeding institutes and stations and the production of combines and specific items of equipment for cleaning the fibre has been organized for its benefit. Guests from abroad have invariably admired the successes achieved by Soviet cotton growing and they have singled out in particular the fate of "Yegiptyanina" -- the high level of production of this crop in the USSR, compared to its homeland.

There is good reason for all this. A quintal of thin fibre produces twice as much fabric as does ordinary medium-fibred cotton and the fabric is of the very best quality. Recently, a series film entitled "Man Changes Skin" was shown on television. Undoubtedly, many recalled the words of the builders who installed the Bakhsh Canal: in behalf of fine-fibred cotton. This was a half century ago. During the past few decades, mainly in behalf of the same economic interests, such large-scale measures have been undertaken as the construction of the Karakum Canal and the development of the Sherabad and Karshi steppe regions.

The cotton growers, whose work is valued highly by the party, performed very well last year despite the difficult conditions. The country's raw cotton production exceeded 9.6 million tons. Compared to 1977, the harvesting of fine-fibred varieties of cotton increased by 252,000 tons. In all three republics -- Tadzhikistan, Turkmenistan and Uzbekistan -- increased attention is today being given to fine-fibred cotton.

"On our farm" stated Sapar Dzhumayev, Hero of Socialist Labor and chairman of the Vakhsh Kolkhoz imeni Karl Marks, "the cropping power has been raised from to to 40 quintals. But we are disturbed regarding our work. A closer study of our fine-cotton efforts reveals certain areas in which we are not entirely satisfied."

"Particularly, if we do not have the overall situation in mind" commented O. Gullayev, a brigade leader at the Vatan Kolkhoz in Turkmenistan, seemingly in agreement with his colleague from Tadzhikistan, "rather, each zone should be studied separately and in a more detailed manner."

We listened to this good advice. And here are the thoughts aroused by our trips.

In the face of an overall and noticeable increase in cotton production in Turkmenistan (it has already exceeded 1 million tons on two occasions), the proportion of fine-fibred cotton has been raised here from 18.4 percent in 1971 to 24.6 percent last year. Moreover, the planned tasks for fine-cotton procurements were exceeded during the past 3 years. But is it correct to be satisfied with this? The farmers themselves believe that there are many unused opportunities available here. For example, of five rayons called upon to specialize in this crop, three of the principal ones -- Bayram-Aliyskiy, Iolotanskiy and Takhta-Bazarskiy -- just as in the past, are using one half of their growing areas for medium fibre varieties, when in fact large areas are available for the latter varieties in the more northern rayons of this same republic and in Central Asia on the whole.

During the past five-year plan, for 3 years in a row, many farms in the southern rayons of Chardzhouskaya Oblast sowed fine-fibre cotton and obtained 24-28 quintals per hectare (the average figure for the republic during these years was 16 quintals) and during these 3 years it completed its plans for 5 years. And during the first year of this five-year plan, they curtailed the sowings of fine-fibre cotton and again returned to medium-fibre types.

Uzbekistan specializes mainly in medium fibre varieties -- the main raw material of the textile industry. The republic's success in the production of this cotton is well known. It also occupies first place in terms of the gross yield of fine-fibre cotton, mainly with fibre of the third type, considered to be extremely valuable for the production of its own nomenclature of fabrics. Compared to the republic's overall harvest of cotton, the proportion of fine-fibre cotton increased from 4.6 to 6.4 percent, an increase of 1.8 percent. Despite the fact that new lands are being introduced into operations on a tremendous scale, mainly in the southern zone in recent years, the areas being used for this crop are increasing slowly. Even in Surkhandar'inskaya Oblast with its rich Sherabad Steppe region.

Kashkadar'inskaya Oblast is the second area in importance for this branch. With noticeable growth taking place in the overall harvest of raw cotton, no increase has been recorded in the fine-fibre varieties during the past 2 years, but rather they have remained at the 105,000 tons level. In the Karshi Steppe region -- a region that is being developed mainly for the growing of fine-fibre cotton -- there are such fully developed virgin land rayons as Kasanskiy, Nishanskiy and Ul'yanovskiy where one half of the arable land is being held for medium fibre varieties and this is not in harmony with the generally high cotton crop standards for which this republic is known.

The proportion of fine-fibre cotton in Tadzhikistan is higher than that of its neighbors. Yes and how could it be otherwise considering that its chief zone of cotton production is the Vakhsh Valley, which accounts for one half of the republic's gross production. This valley, as stated by Bobo Sanginov, a leading plant breeder and director of the Bakhsh Branch of the Tadzhik Scientific Research Institute of Farming, based upon its legendary history and economic advisability, cries out to be sown entirely in fine-fibre cotton varieties. But this request is being denied and not too mildly. Of 444,000 tons produced in the valley last year, only 277,000 tons were of the fine-fibre variety. Over the past 10 years, the proportion of fine-fibre cotton in Tadzhikistan and decreased and substantially -- from 35.5 to 31.5 percent and only once during the past 5 years was the harvest plan for it fulfilled.

Distinct from its neighbors, Tadzhikistan is unable to introduce large tracts of land into use for fine-fibre cotton purposes. The Vakhsh Valley was developed long ago. The cotton growing areas are increasing mainly owing to the northern rayons. An urgent requirement exists for intra-republic specialization, with a clear definition for the Vakhsh Valley as being the predominant producer of fine-fibre varieties of cotton.

Such a picture is formed during a journey throughout the republics. And the overall result for the country is the fact that despite substantial growth in the production of fine-fibre cotton, its proportion in the structure of textile raw materials remains the same as it was 10 years ago and, as reported to us by the Central

Scientific Research Institute of the Cotton Industry in Moscow, it is one and a half times lower than the level required. The shortage of 1st class fibre is especially acute -- the amount being supplied is three times less than that required in accordance with the planned nomenclature of fabrics.

Those with whom we spoke asked the same question: why?

For 1st class fibre, which we have just mentioned, the state pays generously -- almost three times more than for raw materials of the abundant medium-fibre variety. The stimulus is there. In the zone of fine-fibre cotton, the enthusiasm of its supporters has long been restrained owing to a shortage of irrigation water -- today they no longer complain about this. It was harvested only manually and there was not a surplus of hands in the virgin land regions. Today there are many more people working at the virgin land sovkhozes. A reliable machine has been created for harvesting this cotton -- the KhVN-1.2 machine. It was created for an inter-row spacing of 60 centimeters and yet many farms are converting over to wider spacings. A combine of a new modification is needed desperately and in any case the problem of machine harvesting for the fine-fibre cotton varieties is being solved.

However, frosts occur in Central Asia and there is always the fear of having to resow. Indeed, it is said that if thin-fibre cotton varieties are resown, the crop will not have enough warmth. Actually, such resowing work is often carried out in haste and the event is often used as an excuse for planting medium fibre-varieties, although even the same Bobo Sanginov has proven convincingly: a thin-fibre variety that is resown during the first 10 days in May in the Vakhsh Valley region ripens fully and produces 38 quintals of full-value raw cotton.

And the secret is a simple one. It consists, if you will, of a certain hypnosis of the gross output and of our planning costs. In the case of fine-fibre cotton varieties, there are fewer bolls and the average cropping power is somewhat lower. Small but valuable! During the harvest, the situation was as follows: the thin-fibre cotton ripens later, the farms and rayons with this crop close out their busy harvest season with a summary -- for some there are reproaches and reprimands. We found a solution. We introduced a system of differentiated accounting: challenge red banners were established for farms and rayons having thin-fibre cotton crops and a weight coefficient was used for the harvest: a ton of fine-fibre cotton of the 1st type was equivalent to one and a half tons of the usual cotton. This created equal conditions for the competition. And the situation changed immediately.

Thus, is it not possible to introduce a real weight coefficient for fine-fibre cotton based upon the harvest results? Perhaps, and then the desire to produce it will not force the fatal question: "Who will be responsible for the gross product?" Indeed, we have already stated that a ton of thin-fibre cotton produces almost twice as much fabric.

However, no time should be lost in solving the problem.

The structure for fine-fibre raw materials appears to be promising for this year. In the Vakhsh Valley, almost 100,000 hectares are occupied by the 6249-V variety, which has fine fibre of the second type. As mentioned by the republic's Minister

of the Cotton Cleaning Industry, a special order has been placed for this cotton by the textile workers. In Turkmenistan, the production area for cotton with the first type of fibre has been expanded even more. The sowing structure in the southern part of Uzbekistan has been reexamined decisively in favor of this cotton -- the plans call for the varieties Ashkhabad-25 and the Uzbekistan S-6037 and Termez-7 to be sown on an area of 110,000 hectares.

Nevertheless, a problem came to light as a result of discussions held with the cotton growers and textile workers. The obligations undertaken for 1985 by the farmers of Uzbekistan, Turkmenistan and Tadzhikistan for cotton production, including fine-fibre cotton, exceed the upper control figures contained in the Basic Directions for the Five-Year Plan. But the fabric requirements, particularly as regards assortment, have increased greatly compared to the volumes planned and in order to cover these requirements the proportion of fine-fibre cotton in the raw material structure must be raised sharply and more precisely: in 1985, rather than 1.14 million tons as indicated in the republics' counter obligations, there must be 1.4 million tons, that is, its proportion of gross domestic cotton production must be raised to 14 percent.

We invariably discussed these desires of the textile workers in our discussions with the cotton growers

"This is all quite interesting" replied O. Gullayev, "And we are quite capable. Maryyskaya Oblast and the southern portion of Chardzhouskaya Oblast alone can furnish an increase in fine-fibre cotton of approximately 100,000 tons."

"My brigade is obtaining 50 quintals" stated Butayev from Vakhsh, "Thus reserves are available to my neighbors. Indeed, my republic is capable of producing 350,000-360,000 tons of fine-fibre cotton merely by raising the cropping power in all areas."

"We must do it," said Kh. Mukhtarov, Hero of Socialist Labor and brigade leader at the Uzbek Kyzyl Oktyabr' Kolkhoz, as he concluded the discussion, "we have solved even more complicated tasks."

The opinion was unanimous: we can, we must. This was discussed only during rayon and oblast farmer conferences. But we employed a very important document -- the approved plans for the sowing of cotton during 1982. To put it mildly, the contents of the document were read to the listeners. In Uzbekistan, 137,700 hectares have been set aside for regionalized varieties of fine-fibre cotton (we have already stated, varieties having a higher quality fibre). But this indeed is the same number of hectares occupied by them last year. In the decisions handed down during the 26th CPSU Congress, a clear and decisive formula was issued in this regard: "Expand the cultivation of the more valuable fine-fibre varieties of cotton." Expand!"

The cotton growers are very sensitive and responsive to the country's requirements. This property is ingrained into the Soviet character. It is based upon the tremendous logistical potential created for farming and its servicing industry through the efforts of the entire country and upon its rich professional experience. In accordance with the initiative displayed by leading farms in the three republics, an all-union socialist competition is unfolding for the purpose of increasing the

production of fine-fibre cotton. This is a wonderful undertaking -- it will undoubtedly grow into a national movement. There is the proverb which holds that a chain is no stronger than its weakest link. Here, everything must be the reverse. Where weakness exists, strength must be added. It is hoped that new heights will be reached.

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CSO: 1824/271



## MAJOR CROP PROGRESS AND WEATHER REPORTING

### EARLY FALL PLOWING IN KIRGHIZIA RECOMMENDED

Frunze SOVETSKAYA KIRGIZIYA in Russian 22 Sep 81 p 1

/Article: "Fall Plowing Means Harvest"/

/Text/ "As the machine and tractor pool is increased and utilized by the Ipatovo method," writes A. K. Goncharov, chief agronomist of the Seed Growing Farm imeni 50-Letiya SSSR of the Kirghiz Scientific Production Association for Farming, "it has become possible to carry out agricultural operations in a single complex. For example, during the reaping season our harvesting and transport detachments after reaping pick up straw and immediately plow the fall field. Grain growers have become convinced that early fall plowing increases the harvest by an average of 3 to 4 quintals per hectare. This year's results are especially significant. From dry sown areas the farm threshed an average of 19.5 quintals of barley of the Naryn-27 variety and from irrigated areas, 54 quintals of wheat of the Erythrospermum-80 variety and "intensive" wheat. This is more than recorded in socialist obligations. In order to consolidate and increase what has been achieved during the second year of the 11th Five-Year Plan, the seed growing farm has already fulfilled the plan for the preparation of fields for spring sowing."

These lines show the truly invaluable importance of high-quality fall plowing for the cultivation of high and stable harvests and for a successful fulfillment of the assignments of the five-year plan for the production of plant products. The practice of advanced farms has demonstrated that an early preparation of soil for the spring wedge increases the output of grain crops on rugged dry land in the south of the republic and in the Chu and Talas valleys by almost one-third and during dry years doubles it. The productive strength of the fall field on irrigated land plowed after preliminary irrigation increases considerably.

Farms in Sokulukskiy Rayon highly value early fall plowing. During the reaping season it was possible to see both a combine and a tractor with a plow on one land area. Machine operators competed with the slogan "while gathering the present harvest, prepare soil for the future harvest." The collective of the Kamyshevskiy Sovkhoz was among the first to complete the preparation of soil for spring sowing. It plowed almost 2,500 hectares of dry land. Field crop cultivation brigades of the experimental farm of the Kirghiz Scientific Production Association for Animal Husbandry are also close to the finish. It is not surprising that, on the whole, the rayon attained good results. Its farms fulfilled the fall plowing plan 42 percent. The carefully thought out organization of labor of machine operators contributes to success.



Many farms in the Chu Valley prepare soil for spring crops at higher rates than last year. Powerful tractors, including Kirovets tractors, have been placed in furrows in Moskovskiy, Alamedinskiy and Kalininskiy Rayons. As a rule, they plow in two shifts. It is very important to open the front of work for such machines in the south of the republic, the Talas Valley, the Issyk-Kul' area and Central Tyan'-Shan' and to attain an unconditional observance of the field plowing schedule.

This must be especially stated, because the favorable conditions for the production of a rich harvest on the spring field are by no means utilized everywhere. For example, let us take Oshskaya Oblast. Its farms have to plow the fall field on 158,000 hectares, but it has been plowed on less than 10,000 hectares. Meanwhile, grain crops were harvested from more than 126,000 hectares a long time ago. Perhaps kolkhozes and sovkhoses use heavy tractors in other urgent agricultural operations? One cannot say this. Most of them are idle because of disrepair or the shortage of machine operators. At the same time, many tractor operators have been diverted to other operations. Party, Soviet and agricultural bodies should investigate the reasons for the slow preparation of fields for spring crops on every farm and develop measures ensuring the fulfillment of the basic plowing plan in September.

The time for the preparation for early fall plowing is also missed in other zones in the republic. In particular, as yet not a single hectare has been plowed in Narynskaya Oblast. Essentially, basic soil cultivation is only unfolding in Issyk-Kul'skaya Oblast. Managers of party, Soviet and agricultural bodies attribute this to the fact that basic equipment is engaged in the harvesting of grain crops. It goes without saying that the reaping season requires the diversion of many forces, including of machine operating personnel. However, when harvesting and transport detachments were organized, provision was made for a simultaneous performance of reaping, straw picking and fall plowing.

However, to plow the fall field at an optimum time is only part of the work directed toward an increase in the productive force of land. It is very important to do this in a high-quality manner so as to ensure the accumulation of the maximum quantity of moisture and nutrients in soil. The Kolkhoz imeni Il'ich in Kalininskiy Rayon acts correctly. On this kolkhoz the application of liquid organic fertilizers to the basic plowed area was organized with the help of the rayon scientific production association for agrochemical services to agriculture. Unfortunately, other neighboring farms do not utilize all the opportunities for the enrichment of fields with organic fertilizers. Nor are mineral fertilizers applied everywhere. Nevertheless, the agronomical service of rayon agricultural administrations does not see to it that the bulk of fertilizers is applied to the fall plowed area.

The experience of advanced farms convinces us that preplowing irrigation greatly increases the yield of every hectare. On the plots that received moisture supply the Pervoye Maya Kolkhoz in Issyk-Kul'skiy Rayon gathers 45 to 50 quintals of grain. That is why it is important to universally use preplowing irrigation, which guarantees an increase in the yield of fields, especially as this fall there is sufficient water in irrigation sources.

A large number of tractor operators, fuel transporters and irrigators are employed in the preparation of soil for spring crops. The establishment of a firm foundation for next year's harvest depends on their harmonious and efficient labor. Party, trade union and Komsomol organizations are called upon to head the socialist competition among all those that prepare the fall field and to organize a regular review of the results of labor competition. Mass political work, challenge red pennants, bonuses and the issue of "express telegrams"--all this should be subject to an increase in the productivity of labor and to an improvement in the quality of field plowing. At the same time, it is also necessary to see to it that the cultural and domestic conditions of all the people engaged in fall plowing are improved.

An early high-quality plowed fall field is a guarantee for a high harvest next year. To plow it for the entire spring wedge is a matter of honor of all the republic's farmers.

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CSO: 1824/252

## MAJOR CROP PROGRESS AND WEATHER REPORTING

### EFFICIENT MOISTURE SUPPLY IRRIGATION IN KIRGHIZIA URGED

Frunze SOVETSKAYA KIRGIZIYA in Russian 13 Mar 82 p 1

/Article by G. Yar-Mukhamedov, chief of the Kirghiz Republic Administration for Hydrometeorology and Control of the Natural Environment: "Sources of a Rich Harvest"/

/Text/ Land and water. Rural workers always put these two words next to each other when the conversation turns to the sources of a high harvest in irrigated farming. Grain, sugar beet, vegetable and cotton growers concern themselves with the saturation of soil with moisture not during the onset of vegetative irrigation, but much earlier. Right after the gathering of the harvest brigades and links try to utilize the water in irrigation sources for the saturation of soil with moisture. Many farmers do not discontinue moisture supply irrigation during favorable weather even in winter. In the south of the republic in Issyk-Kul'skiy and Tonskiy Rayons in January and February one can encounter irrigators channeling water to areas sown with perennial grass and to orchards.

When March arrives, moisture supply irrigation expands in many agricultural zones in the republic. At this time the need for irrigation water is minimal and it is possible to create sufficient moisture reserves in soil and fill water storage lakes, daily control basins, ponds and reservoirs. This is especially important now, when the situation with moisture reserves is quite tense.

It is well known that atmospheric precipitation is the basic source of moisture accumulation in soil. However, last winter was low in snow. From 1 October 1981 through 1 March 1982 the snow that fell on most of the republic's territory comprised only 50 to 80 percent of the norm. The snow cover in the agricultural zone was one-half to one-eighth of the average long-term values. The most alarming situation was created in some rayons in Issyk-Kul'skaya Oblast (Tonskiy and Issyk-Kul'skiy Rayons) and in Talasskaya Oblast (Toktogul'skiy, Charkal'skiy and Kirovskiy Rayons). In Susamyr and Narynskaya Oblast (Kochkorskiy, northern part of Dzhungal'skiy and Toguz-Torouskiy Rayons) the amount of precipitation did not reach even one-half of the norm.

The situation in other basic agricultural regions in the Chu, Fergana and Talas valleys is not much better. In these valleys the accumulation of precipitation in fields does not exceed 80 percent of the average long-term norm. The accumulation of precipitation was relatively normal only in some regions in the north of Kirghizia (Keminskiy, Issyk-Atinskiy, Dzhetty-Oguzskiy and part of Ak-Suyskiy Rayons),

in Narynskaya Oblast (Tyan'-Shan'skiy, At-Bashinskiy and Ak-Talinskiy Rayons), in Oshskaya Oblast (Sovetskiy, Alayskiy, Batkenskiy, Lyaylyakskiy and Frunzenskiy Rayons) and in the north-eastern part of Issyk-Kul'skaya Oblast (Dzhety-Oguzskiy and Tyupskiy Rayons).

Thus, throughout the republic's agricultural regions the process of accumulation of precipitation was not quite favorable for agricultural crops and before too long this had an effect on the provision of crops with moisture. As the results of observations of the network of ground hydrometeorological stations and agrometeorological posts and agrometeorological strip and air inspections showed, before wintering the provision of winter crops with moisture for the 1982 harvest was 25 to 50 percent below the optimum in the Chu and Talas Valleys and in Oshskaya Oblast and 10 to 45 percent below the norm in Issyk-Kul'skaya and Narynskaya Oblasts. Calculations show that in most agricultural regions by the beginning of active vegetation the meter soil layer may not be sufficiently saturated with moisture even on areas where preplowing irrigation was carried out. However, on dry land and nonirrigated areas the moisture deficit is especially big--55 to 70 percent of the optimal and last year's reserves.

The height of the snow cover in high-mountain regions, where a river flow is formed, comprised 60 to 80 percent of the norm by the beginning of March. Although the water content of most rivers in the republic is still within the average long-term values, the shortage of precipitation in high-mountain regions cannot fail to have an effect on the sources of irrigation during subsequent months. The results of hydrometeorological observations of rivers in the Talas, Chatkal' and part of Issyk-Kul' basins and of the catchment areas in the Fergana Range, the Sysamyr Valley and the region of the Toktogul' Reservoir give reason to assume that the water content of the rivers in these regions will be 20 to 50 percent lower than the usual water content during the 1982 vegetative period.

A similar situation was also created during the dry years of 1972, 1974 and 1975, when nevertheless it was possible to obtain good harvests. This means that, utilizing the experience accumulated in overcoming water shortage, now too it is possible to ensure a normal conclusion of the agricultural year, of course, provided that every cubic meter of irrigated water is utilized according to purpose and at the optimum time and the moisture accumulated in soil is preserved as long as possible. It is not only a question of the vegetative period, but also of the present moment, when farmers can take advantage of such a powerful means of controlling weather conditions unfavorable for agriculture as moisture accumulation irrigation--after all, right now the republic's rivers have enough water.

Thus, farm managers must right now develop plans of measures envisaging the preservation and accumulation of useful moisture in soil. Taking into consideration the weather characteristics of the current year, it is very important to approach moisture supply irrigation with a full responsibility for the harvest. On every farm it is necessary to assign the necessary number of irrigators and to organize their work so that water is supplied to areas sown with perennial grass and fruit plantations around the clock. Their work is not easy, especially at such a time as early spring with night frosts and day thaws. Therefore, it is necessary to set up yurtas and tents for irrigators' rest and to organize the preparation of hot food. It is no less important to provide them with warm clothing and rubber boots and those who work at night should be given lanterns.

The farms that utilize the water collected in irrigation sources for moistening both individual orchards and gardens act correctly. Kolkhoz members, sovkhos workers and employees clean the canals through which water is to be supplied to rural areas. As scientists and specialists have determined, the moisture supply irrigation carried out at this time reduces the need of plants for water during the vegetative period by one-third.

Spring field operations are now expanding in the south of the republic--in the Chu and Talas Valleys. These operations, especially the harrowing of areas sown with perennial grass and winter crops and the sowing of early crops, must be performed in a few hours so that, utilizing the optimum moistening of the upper soil layer, good sprouts can be obtained. The specialists of the Kirghiz Republic Administration for Hydrometeorology and Control of the Natural Environment will do their utmost so that agricultural workers have reliable and prompt agrometeorological and hydrological forecasts.

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## MAJOR CROP PROGRESS AND WEATHER REPORTING

### CONFERENCE DISCUSSES MOISTURE DEFICIT IN KIRGHIZIA

Frunze SOVETSKAYA KIRGIZIYA in Russian 11 Mar 82 pp 1-3

/Report on conference: "Water Supply Irrigation for Fields"/

/Text/ A conference, at which urgent measures to intensify moisture accumulation irrigation were discussed, was held in the Central Committee of the Communist Party of Kirghizia and the republic's Council of Ministers a few days ago. The conference heard a report by G. Kh. Yar-Mukhamedov, chief of the Kirghiz Republic Administration for Hydrometeorology and Control of the Natural Environment of the USSR State Committee for Hydrometeorology and Environmental Control, on the emerging unfavorable spring weather conditions for the accumulation of sufficient moisture reserves in soil, by K. M. Batyrkanov, minister of land reclamation and water resources, by K. T. Tynaliyev, minister of fruit and vegetable industry, and by G. P. Saltykov, deputy minister of agriculture, on the course of water supply irrigation and on the preparation of the irrigation network, and by A. Kozhomkulov, chief of the Kirghiz Main Administration for the Construction of Waterworks, on the construction of water installations. K. Kokoyev, M. I. Logvinov, N. Sydykbayev, V. G. Grinenko, A. Kenesariyev and A. I. Vasil'chenko, first secretaries of the Panfilovskiy, Moskovskiy, Kantskiy, Issyk-Atinskiy and Chuyskiy rayon party committees, and D. K. Zvyagintsev, V. S. Fil'shin and K. Mambetaliyev, chairmen of the Kalininskiy, Alamedinskiy and Keminskiy rayon executive committees, presented information on the organization of moisture accumulation irrigation.

Comrade T. U. Usubaliyev, first secretary of the Central Committee of the Communist Party of Kirghizia, made a speech at the conference.

The speakers noted that last winter was very low in precipitation and the height of the snow cover in the republic's agricultural zone was one-half to one-eighth of the average long-term values. The accumulation of precipitation makes up 50 to 80 percent. All this had a negative effect on the provision of crops with moisture. By the beginning of active vegetation of agricultural crops the meter soil layer will not be fully saturated with moisture even on areas where preplowing irrigation was carried out. There is an especially big moisture deficit on dry land and on areas not moistened since fall--55 to 70 percent of last year's optimal reserves. The water content of rivers during the period of plant vegetation is expected to be 20 to 50 percent lower than the ordinary water content.

A moisture deficit was felt as early as last fall. Kolkhozes and sovkhoses organized preplowing irrigation and the moistening of areas sown with perennial grass and fruit plantations. As a result, the water supply irrigation plan established for the fall and winter period was fulfilled. However, many farms do not hurry with early spring irrigation. Very few people are assigned to carry out water supply irrigation on areas sown with lucerne and sainfoin and on orchards. For this reason in Panfilovskiy Rayon only 900 hectares were moistened, whereas at this time last year the area saturated with moisture was twice as large. The same is observed in Kalininskiy Rayon. Its kolkhozes and sovkhoses carried out water supply irrigation on only 1,100 hectares. This is 900 hectares less as compared with the same period last year. Farms in Alamedinskiy, Sokulukskiy and Moskovskiy Rayons did less work on water supply irrigation than last year. The same reproach was uttered against many rayons in Oshskaya, Issyk-Kul'skaya and Talasskaya Oblasts.

It was also stated that the republic's kolkhozes and sovkhoses and administrations of irrigation systems must take urgent measures to fill all water storage lakes, daily control basins, VDR /expansion unknown/, ponds and reservoirs up to the designed volume, utilizing all the available water resources, as well as melt and rain water. Water user farms together with the associations of the State Committee for Supply of Production Equipment for Agriculture must repair and prepare all mobile pumping stations for the use of collector-drainage, tap and discharge water for irrigation.

The workers of the Kirghiz Main Production Administration of Power and Electrification are called upon to do a great deal. They must promptly repair electric transmission lines and transformer substations for a regular supply for pumping stations. In turn the Ministry of Land Reclamation and Water Resources should ensure a regular operation of pumping stations for the supply of water to fields.

In order to grow a good harvest on dry land, it is necessary to harrow fields early and to avoid moisture evaporation.

Comrades P. I. Naumov, P. M. Khodos and K. M. Moldobayev, members of the Bureau of the Central Committee of the Communist Party of Kirghizia, took part in the work of this conference.

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## MAJOR CROP PROGRESS AND WEATHER REPORTING

### INEFFICIENT SOWING CAMPAIGN IN KIRGHIZIA SCORED

Frunze SOVETSKAYA KIRGIZIYA in Russian 18 Sep 81 p 1

/Article by Z. Filipenko, chief agronomical specialist in grain crops of the Kirghiz SSR Ministry of Agriculture: "Not To Lose Time"

/Text The present reaping season has brought joy to the republic's farmers. Among the many reports on a high yield two make them especially happy: Grain growers in Issyk-Kul'skiy Rayon threshed an average of 45 quintals of grain and in Kochkorskiy Rayon, 47 quintals. These are very optimistic figures. If, on the average, entire rayons attained such a yield, farms should strive for an even higher yield.

Actually, something else is happening. Having grown a rich harvest, kolkhoz and sovkhos managers settled down and were lulled into complacency to such an extent that they prepared themselves for the sowing campaign much worse than before.

The optimum time for the sowing of winter crops on irrigated land in the Chu Valley and in Issyk-Kul'skaya and Talasskaya Oblasts has quite strict limits--from 10 through 20 to 25 September. As practice shows, a delay lowers the harvest considerably. Furthermore, in September it is sufficient to place 2 quintals of seeds per hectare, but in October-December this quantity must be increased to 3 or 3.5 quintals. What a tremendous unproductive expenditure of valuable choice grain!

This is known not only to an agronomist, but to an ordinary grain grower as well. Nevertheless, the optimum time is coming to an end, but more than one-half of the land allocated for the winter wedge has not even been plowed! Even less than that has been prepared in Issyk-Kul'skaya Oblast and in Moskovskiy, Sokulukskiy and Keminskiy Rayons.

Why? Was there a shortage of equipment? Was bad weather a hindrance? Neither! There was enough equipment and plowing links were formed in harvesting and transport complexes. This year there is also enough water for irrigation (it has now been decided to plow for winter crops only after irrigation). Bad weather is not a hindrance. As is well known, in the Chu Valley the reaping campaign was completed a month ago.

Nevertheless, sowing is proceeding very slowly. Seeds have been placed only on one-tenth of the irrigated winter wedge. This is 9,000 hectares less than last year. The lag in Issyk-Kul'skaya and Talasskaya Oblasts is especially big. Grain



growers in Oshskaya Oblast and rayons of republic subordination do not lag behind last year's fall. However, this in no way points to a satisfactory performance of the sowing campaign. Simply, during the past season on most of the field sowing was also delayed significantly. This was one of the reasons for the great diversity in the yield.

There is no vacation on the grain field. If now all the possibilities are not mobilized to make up for what has been neglected and to sow at the best time, next year under the most satisfactory conditions we will be short of thousands of tons of grain, which the field could have produced. This must not be allowed. After all, grain is the basis for the people's well-being.

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## MAJOR CROP PROGRESS AND WEATHER REPORTING

### BRIEFS

SOWING IN TALASSKAYA OBLAST--Frunze--Yesterday farmers in Talasskaya Oblast were the first in Kirghizia to begin the sowing of winter crops. Utilizing the experience of the people of Ipatovskiy Rayon creatively, they jointly gathered the harvest, cleaned fields and prepared the arable area for sowing. About 300,000 hectares of fields were allocated for winter crops in the republic. /Text/ /Moscow TRUD in Russian 22 Aug 81 p 1/ 11,439

INDUSTRIAL SEED GROWING--Frunze--Farmers in Oshskaya Oblast were the first in Kirghizia to lay in seeds of spring crops. More than 7,000 tons of seeds of highly productive wheat and barley varieties were prepared. The transfer of seed growing to an industrial basis was completed in the republic. A network of farms specializing in seed production was established. /Text/ /Moscow GUDOK in Russian 13 Sep 81 p 1/ 11,439

SOWING IN CHU VALLEY--Frunze, 10 Mar--Today grain growers in the Chu Valley have taken out sowing units to fields. Oat and barley seeds are being placed in soil. The unusually early arrival of spring did not catch farmers in Tyan'-Shan' by surprise. They prepared themselves well for field work. The sowing of spring grain crops is to be carried out in 5 to 7 work days. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 11 Mar 82 p 1/ 11,439

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## LIVESTOCK

UDC 636(470)

### LIVESTOCK PRODUCTION POTENTIAL OF NONCHERNOZEM ZONE

Moscow ZHIVOTNOVODSTVO in Russian No 3, Mar 82 pp 28-30

/Article by L.S. Zhebrovskiy, professor and deputy chairman of the BASKhNIL branch for the nonchernozem zone of the RSFSR: "Reserves of the Nonchernozem Zone"

/Text Animal husbandry in our country possesses considerable potential and a stable gene fund for the various strains of agricultural animals and poultry. At the present time, there are 51 strains of large-horned cattle, 44 - horses, 75 -- sheep, 31 -- swine and 44 strains of poultry, including 20 strains of chickens, 13 -- geese, 5 -- ducks and 6 strains of turkey.

Plant strains, improved and created through the work of man, are distinguished by a high productivity and by the ability to provide a good return for feed. They possess relative stability against transmitting strain characteristics to offspring. However, the task of maintaining productivity at a sufficiently high level requires continuous work.

Thus, at the present time and for the immediate future, one vital task is that of carrying out scientific studies on the development of effective methods for the breeding and reproduction of agricultural animals, improving existing strains and breeding new and highly productive strains, strain groups, hybrids and lines of agricultural animals and poultry, which meet the requirements for an industrial technology and creating technologies for the industrial production of the products of animal husbandry, feed production and feed preparation.

The plans for the Eleventh Five-Year Plan call for the breeding of highly productive types, lines and a herd of large-horned cattle having a milk yield of from 5,000 to 7,000 kilograms, with a fat content of 3.8-4.0 and protein -- 3.3-3.4 percent; swine with an average daily increase in weight of 700-750 grams; sheep of the Romanov strain for obtaining 250-300 lambs and an increase in live weight of 70-90 quintals per 100 ewes; in egg poultry production, to breed crosses having an egg productivity of 250-300 and in meat poultry production -- broilers with a daily weight increase of 35-40 grams.

The decree of the CC CPSU and the USSR Council of Ministers entitled "Further Development of the Nonchernozem Zone During the 1981-1985 period" calls for further conversion of animal husbandry to an industrial basis. Towards this end, the plans call for the construction and placing in operation of the following facilities during the 1981-1985 period: animal husbandry complexes and mechanized

farms for 800,000 cows for milk production, for the raising and fattening of 700,000 head of young large horned cattle stock, complexes for the raising and fattening of 2.14 million head of swine; poultry factories for egg production for 5 million laying hens; broiler factories for 80 million head.

Complexes of the industrial type must play a dominant role in the intensification of the production of animal husbandry products and in the implementation of a long-term program in this branch of agricultural production.

The conversion of animal husbandry to an industrial basis is a most important lever for raising the productivity of the animals and increasing the output of products. The effectiveness of the industrial production of goods can be traced by reviewing the development of poultry raising. Thus, over a period of 12 years the egg productivity of hens increased by more than 25 percent (from 158 to 216). Feed expenditures for the production of 1,000 eggs decreased from 3.9 to 2.02 quintals of feed units and labor expenditures for the production of 1 quintal of weight increase in broilers fell from 5.3 to 4.05 man-hours. Approximately nine billion additional eggs were obtained merely by raising the egg productivity of the hens.

At the beginning of the Eleventh Five-Year Plan, the proportion of pork production at the complexes was 36.1 percent and for the northwestern region -- 42.9 percent. The effectiveness of pork production at the complexes is borne out by the following data: in 1980, the average daily increase in weight during fattening in the zone was 502 grams and on conventional farms -- 377 grams; the average weight of one animal at time of sale was respectively 117 and 112 kilograms and the production cost per quintal of weight increase -- 104 and 156 rubles. The best results were achieved by the farms in the northwestern region and the swine raising complexes Il'inogorskiy in Gor'kovskaya Oblast, Vostochnyy in Leningrad Oblast and Permskiy in Permskaya Oblast have the best technical-economic indicators not only in the Nonchernozem Zone of the RSFSR but also for the country as a whole.

A comparative analysis of the data for beef production at complexes and conventional farms reveals that the former has an advantage. For example, the average daily increase in weight during fattening at complexes in 1980 was 768 grams and at conventional farms -- 483 grams; the average weight for the animals sold was 417 and 335 kilograms respectively; production costs -- 122 and 229 rubles.

The indicators of the complexes for the raising and fattening of sheep and the production of wool still remain low. It is sufficient to state that the average daily increase in weight during the fattening of sheep at complexes is 40 grams daily. The wool yield is 2 kilograms, but the production cost for the output is rather high: approximately 400 rubles for 1 quintal in average daily weight gain and more than 1,500 rubles for 1 quintal of wool.

The operational results of complexes in milk production, over a period of several years, testify to their higher level of effectiveness compared to conventional farms. For example, the productivity of cows at dairy complexes in 1980 amounted to 2,493 kilograms and at conventional farms -- 2,158 kilograms, labor expenditures at complexes were lower by a factor of 1.5 and the yield of calves and output quality were higher. At the Lensovetovskiy Complex in Leningrad Oblast, labor expenditures per quintal of milk amounted to 1.9 man-hours and the average milk yield per cow was 3,787 kilograms.

However, in addition to fine indicators at some complexes, there are also some where the work is not proceeding in a satisfactory manner. For example, the milk yield per cow at the dairy complex of the Polenovo Sovkhoz in Tul'skaya Oblast was 1,220 kilograms, at the Rodina Kolkhoz in Smolenskaya Oblast -- 1,412 kilograms, with a calf yield of 52 percent and at the complex of the Sinezerskiy Sovkhoz in Bryanskaya Oblast the milk yield per cow is only 1,115 kilograms.

The development of and improvements in the effectiveness of the cattle husbandry branch, both in the near and distant future, must be based upon four principal factors: achieving genetic improvements in the cattle, raising the level and improving the quality of the feed being supplied to the animals, optimization of their use and the successful introduction into operations, on an industrial basis, of highly efficient production technologies. Only all-round development will make it possible to eliminate the bottlenecks and raise the efficiency of the branch. In the process, it must be borne in mind that feeding factors will account for almost 60 percent of the growth in the production of cattle husbandry products. Actually, the feeding level is not increasing and the structure of the ration is becoming less favorable owing to a reduction in the production of coarse and succulent feed and this in turn is resulting in an increase in the expenditure of concentrates for milk production. The proportion of hay in the overall volume of coarse feed has decreased from 43 percent in 1965 to 24 percent in 1979. Natural haying and pasture lands are not being utilized in a satisfactory manner; the productivity of the haying lands is 7-8 quintals of hay per hectare.

The cultivation of highly productive and rich in protein forage crops -- alfalfa, clover, peas, vetch, lupine, rape and others -- is extremely limited. The sowing areas for pulse crops have been reduced from 7 million hectares during the Seventh Five-Year Plan to 3 million hectares in 1980. The sowings of pulse crops have been reduced considerably in Bryanskaya, Orlovskaya, Gor'kovskaya and other oblasts.

At many kolkhozes and sovkhoses throughout the zone, the campaign to raise the quality of the feed is not being carried out in a satisfactory manner and proper conditions are not being created for storing the feed. It is because of these reasons that approximately one half of the hay, haylage, silage and grass meal being obtained each year is marked by low quality and this leads to excessive expenditures of feed and to increased costs for animal husbandry products. Thus it is by no means an accident that the production of 1 quintal of milk in the zone requires an expenditure of 1.5 quintals of feed units and for an increase in weight of 1 quintal in large-horned cattle -- 12.8 and in swine -- 8.9 quintals of feed units. These figures are 15-30 percent higher than the established norms for feeding.

It bears mentioning that breeding and selection play a great role in raising the productivity of the animals and these two factors are based upon the productivity of the bulls and cows, the quality of their offspring, upon the use of computer equipment in breeding work and so forth.

The optimization of reproduction is a most important condition for raising the productivity of animals. It has been observed that cows on farms in the Nonchernozem Zone have an extended service period and a raised interlactation period (exceeds the norm by 13 days) and this in turn lowers the milk yield per cow by 80 kilograms per year. Owing to a high degree of barrenness among the cows (21 percent), the farms sustain a shortfall of more than 160 kilograms of milk per cow annually.

The operational experience of spteskhozes [specialized farms] and complexes for the specialized raising of non-calving young cows reveals that optimum conditions are created at this category of farms for the feeding and maintenance of heifers. Here the animals are better able to develop and, it follows, become pregnant earlier. The live weight of non-calving young cows in their 6th or 7th month of pregnancy is considerably greater than that of heifers raised on conventional farms and labor productivity and the productivity of the brood stock are also raised.

The recommendation at the present time is that complexes newly placed in operation should be supplied with heifers which are in their 6th or 7th month of pregnancy and complexes already in operation -- with first heifers deemed suitable for an industrial technology. Moreover, replacement young stock should ideally be raised under conditions identical to those which prevail at the complex where they are to be used.

The equipping of complexes with first heifers, with no culling out according to their suitability of use under the conditions imposed by an industrial technology, will result in a considerable shortfall in output. Studies have shown that roughly 40 percent of the first heifers are unsuitable for use under an industrial technology (in terms of productivity, speed of milking). Each day the complexes sustain a shortfall from these animals of from 1 to 2 kilograms of milk, or more than 100-200 kilograms during lactation.

Thus, first heifers must be selected for the complexes that will meet the following requirements: the milk yield during lactation must constitute 85 percent of the average productivity of the herd, the speed of milking -- 1.3 kilograms per minute, time of milking -- not more than 10 minutes for two-stage milking and an index of not less than 40 percent for uniformity in the development of udders.

The concentration of animals at large complexes and farms, particularly when use is made of the loose-housing and box system of cow maintenance in the absence of any radical change in labor organization, precludes the possibility of achieving a well organized zootechnical accounting for the movement of the animals among the sections or of detecting the rutting of the cows and their fertilization in a timely manner and this leads to a reduction in the milk productivity and reproduction functions of the animals. Thus, in the interest of raising the operational efficiency of the dairy complexes and large farms and as indicated in the experience of many farms, exceptional importance is attached to introducing a flow-line-departmental system of cow maintenance into production operations, a system which will make it possible to make maximum use of the physiological potential of the animals.

By observing the recommendations for introducing this cattle maintenance system into operations and also for labor organization and payments, many of the farms which employed this progressive technology achieved a considerable increase during the very first year in the indicators for cow productivity and herd reproduction, compared to farms which employed the old technology. Individual farms achieved even greater success in cow productivity and in the yield of calves per 100 cows.

At the Koryazhemskiy Sovkhoz in Arkhangel'skaya Oblast, where the departmental system was introduced into operations in 1975, cow productivity was raised by 373 kilograms and the yield of calves increased from 80 to 97. In 1979, in Vologodskaya Oblast, 18 farms which had converted over to use of the new technology, compared to

the remaining farms in the oblast, produced an average increase in milk yield per cow of 306 kilograms and it obtained nine more calves for each 100 cows. In Leningrad Oblast the flow-line-departmental system was introduced into operations at 63 farms and complexes having 52,000 cows. An analysis of 1980 data revealed that at complexes where this technology was introduced into operations the average milk yield per cow was raised by 60 kilograms. A positive feature here is the fact that this method can also be employed at breeding plants. Thus, intra-farm specialization was introduced into operations at the Kosinskiy Breeding Plant in Kirovskaya Oblast in 1972. This enabled it to raise the milk yield of 1,200 cows from 3,000 to 4,000 kilograms or more. Moreover, the yield of calves per 100 cows was raised from 84 to 99 head, feed consumption per kilogram of milk amounted to 1.16 feed units and the production cost for 1 quintal of milk -- 20 rubles and 85 kopecks.

Thus, the introduction of the flow-line-departmental system of cattle maintenance is making it possible to take into account more completely the physiological and productive characteristics of the animals in connection with the industrial production of goods, that is, it ensures the possibility of employing an individual approach for organizing the feeding and maintenance of animals, in keeping with their physiological condition; to intensify selection-breeding operations; to organize herd reproduction work; to define in a clear manner the functions of the farm specialists and workers; to introduce into operations an all-round system for controlling the quality of labor and output during all stages in the production cycle.

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## LIVESTOCK

### BURYAT ASSR LIVESTOCK REVIEWED

#### Reduced Cattle Productivity

Moscow SEL'SKAYA ZHIZN' in Russian 11 Feb 82 p 1

[Article by M. Babintsev (Buryat ASSR)]

[Text] Last year the kolkhozes and sovkhoses of Buryatiya managed, with a limited supply of forage, to increase milk yields and weight gains, to sell the state 10,000 tons of milk in excess of the plan, and to increase meat production by 20 percent.

Many farms were able to take advantage of experience that had been accumulated. The leading milkmaids of the Iskra Kolkhoz in Ulan-Udenskiy Rayon obtain an average of 10 kilograms of milk per cow each day. The animal husbandry workers of the Pobeda Kolkhoz and the Okino-Klyuchevskiy Sovkhoz in Bichurskiy Rayon and the Erdem Kolkhoz in Selenginskiy Rayon increased the productivity of the dairy herd appreciably. Forage supplies were not great here either, but they took a thrifty attitude toward them, concentrated them all in one place, strictly accounted for their expenditure and arranged processing of them. Everything was done so that each kilogram of feed reached the animals in prepared form, strictly in keeping with the ration. Efficient zooveterinary control and effective competition were arranged on the farms.

Unfortunately, far from all farms of the republic can boast of such organization of things. The director of the Erkhirikskiy Sovkhoz, G. I. Prokosov, and I went around to almost all of the farms. And we did not meet either a brigade leader or a zootechnician on any one of them. Heavy yellow locks hung on the doors of the day rooms. Had there been good order and good results on the farms the absence of the managers and specialists could have been justified. But the tragedy was that negligence reigned everywhere. The facilities for the cows and calves were damp and dirty and the feed shop was not working. Hence the result: the productivity of the cows was 4 kilograms of milk a day. The situation with the sheep was no better.

The Erkhirikskiy is the largest farm in Zaigrayevskiy Rayon. It is located a half hour away both from the rayon center and from Ulan-Ude.



"People from the rayon and republic offices drop in on us almost every day," says the sovkhos director, G. I. Prokosov. "So we are constantly being supervised."

What kind of supervision is this? Specialists from the rayon agricultural administration and the Buryat Ministry of Agriculture and workers of the party raykom and rayispolkom usually just look into the director's office, bypassing the farms and the shepherds' camps. And things are even worse there.

And yet one need not go far to find experience in good organization of wintering. Right here in Zaigraevskiy Rayon there is the Onokhoyskiy Sovkhoz which equipped an excellent feed shop in the central farmstead a year ago. It cost 50,000 rubles, and these expenditures were justified. The shop daily prepares about 25 tons of dry and liquid feed mixtures, improved with concentrates, mineral supplements and conifer meal, and they are transported to all the farms and shepherds' stations. Centralized delivery of feeds has reduced their expenditure by almost one-fourth. During the year the productivity of the cows increased by 100 kilograms, and after intensive fattening the sheep go for slaughter weighing no less than 35 kilograms.

The Onokhoyskiy Sovkhoz gets by with its own feeds while its neighbors are constantly acquiring feed from the outside. They have learned to raise corn on irrigated sections here and obtain more than 300 quintals of green mass per hectare.

"In our zone, by effectively utilizing all sources of water, it possible to have feeds during any year," G. V. Pruidze, the Onokhoyskiy director is convinced.

The Erkhirikskiy Sovkhoz, located in the lowland of the Uda River, is in a more advantageous position, but nonetheless it does not raise silage or other feed crops.

The wintering of livestock is poorly organized on the Druzhba Sovkhoz, the Kolkhoz imeni XXI s"yezd KPSS, the Tunki Kolkhoz and other farms of Zaigraevskiy Rayon. Just before the beginning of wintering the case of Zaigraevskiy Rayon was discussed in the bureau of the oblast party committee. They discussed the readiness of feed shops, personnel, proper control and technical support for the farms. As is the custom, serious attention was devoted to the shortcomings. But four months have already passed and the situation in animal husbandry has not changed.

One cannot compare the Tunkiskaya valley with Zaigraevskiy Rayon--the land is fertile here and the climate is moist. The farms harvest fairly good crops of grain and feeds in almost any year. But here is what is strange: in terms of the results of wintering the animal husbandry workers of Tunki are behind those farms which were unable to create a good supply of feeds because of the drought. There is a sharp decline in the productivity of the farms of Yeravninskiy and Kurumkan-skiy rayons where, as in Tunki, climatic conditions are more favorable. The reasons are all the same--poor organization of winter work. Of the 459 feed shops and feed kitchens in the republic 430 are in operation. It would seem that this is not bad. But in another report it says that the livestock receive only half of the straw in processed and improved form. Hence the result: while in December the milk yield in the republic increased by more than 20 percent as compared to the same period of 1980, in January of this year it decreased by just as much.

The assistance to the farms on the part of patronage organizations has turned out to be poor. Enterprises of the Buryat ASSR Ministry of the Timber Industry and the Zabaykalles association have not fulfilled the plans for the delivery of conifer and have deprived the farms of vitamin feed. Many kolkhozes and sovkhoses of the republic require immediate assistance on the part of Sel'khoztekhnika for repair and technical servicing of dairy complexes and feed shops.

The Transbaykal winter is long and severe. And a good deal of effort is required in order to get through it normally.

#### Cattle, Swine, Poultry Overview

Omsk ZEMLYA SIBIRSKAYA, DAL'NEVOSTOCHNAYA in Russian No 2, Feb 82 pp 29-31

[Article by B. I. Nikolayev, deputy chairman of the Buryat ASSR Council of Ministers, candidate of agricultural sciences]

[Excerpts] Buryatiya has long been considered a region of animal husbandry whose traditional branches are cattle and sheep raising. Animal husbandry products comprise 70 percent of the gross agricultural production.

During the years since the March (1965) Plenum of the CPSU Central Committee the average annual meat production on the kolkhozes and sovkhoses of the republic have increased by 46 percent, milk--by 45 percent, wool--by 47 percent, and eggs--7.6-fold. The branch's material and technical base has been considerably strengthened, much is being done to strengthen the feed base, the production of eggs, poultry meat and pork has been changed over to industrial technology, and comprehensive mechanization is being introduced in dairy farming and fattening of large horned cattle. Cattle raising for meat has also been developed.

By the beginning of the Eleventh Five-Year Plan the farms of the republic had 356,200 head of large horned cattle, including 110,400 cows, and they had 141,500 hogs, 1,616,000 sheep and 51,600 horses.

The unfavorable weather conditions of the past five-year plan and especially 1979 and 1980 created great difficulties in providing animal husbandry with feeds. The underfeeding of livestock was the cause of its relatively low productivity. The average live weight of one head of large horned cattle released for meat during the past five years was 318 kilograms and of sheep--35 kilograms; the milk yield per cow on forage was 1,773 kilograms; and the yield of wool from one sheep was 3 kilograms. For every 100 female agricultural animals we obtained 76 calves, 73 lambs and 60 colts. We obtained 11.2 piglets per one sow.

In keeping with the instructions of the 26th CPSU Congress, the republic has drawn up plans for the development of agriculture up to the year 1990. They envision, as a result of strengthening the material-technical and feed base, improving selection and breeding work, and introducing advanced technology into animal husbandry, the following increases in production as compared to the average annual level of the Tenth Five-Year Plan: meat--58 percent, including beef--53 percent, pork--60 percent, mutton--32 percent, and poultry meat and horse flesh--200 percent.

The increase in meat production will be achieved primarily as a result of increasing the productivity of the animals with a relatively small increase in the number of livestock. It is intended to increase the number of head of large horned cattle on the kolkhozes and sovkhoses by 10 percent in 10 years, including the number of cows--by 25 percent, sheep--by 7 percent and hogs--by 15 percent. The meat herd is to be increased to 110,000 head. The gross output of young per 100 female agricultural animals will increase during this period as follows: calves--18 percent, lambs--20 percent. The release weight of one head of large horned cattle will be increased to 400 kilograms and more and that of sheep--to 40 kilograms.

During this period it is intended to construct complexes for raising and fattening the young of large horned cattle: one to accommodate 3,000 and six interfarm facilities to accommodate 9,000 head, fattening areas for 400,000 sheep, two hog fattening complexes to accommodate 36,000, and a broiler farm to accommodate 3.2 million broilers.

In order to utilize natural feed resources more fully, attention will be devoted to developing horse raising. It is intended to create two additional horse raising sovkhoses.

Milk production will increase by 40 percent as compared to its average annual production under the Tenth Five-Year Plan as a result of increasing the productivity of the livestock and partially as a result of increasing the number of head of cows. It is intended to construct additional complexes for raising 3,000 head of non-calving young cows a year and mechanized dairy farms to accommodate 10,800 head.

As a result of the construction of two poultry farms for eggs in the republic to accommodate 300,000 laying hens (one for 100,000 in the Buryatiya section of the BAM), egg production will increase by 60 percent.

Wool production is to increase by 30 percent as a result of increasing the number of head of sheep by 7 percent as compared to 1980 and the yield of wool per sheep is to be increased to 4 kilograms in physical weight.

It is intended to implement measures for increasing the effectiveness of the utilization of arable land and natural feed lands, to reclaim more land, and also to strengthen the production base for feed production, improve the technology for procuring feeds and preparing them for distribution. The measures earmarked for crop growing will make it possible to provide animal husbandry with coarse, juicy and also concentrated feeds (except for the hog raising and cattle fattening complexes and poultry farms).

Thus the increase in the production of animal husbandry products should be carried out as a result of increasing the productivity of the animals. In solving this problem, in addition to significantly improving feeding and creating reliable conditions for keeping livestock and poultry, a great deal of significance will be attached to selection and breeding work for further improvement of the breeding and productive qualities of the animals and poultry.

The planned breed for dairy farming in Buryatiya is the Simmental. At the present time cattle crossed with this breed combine its best qualities--dairy productivity, high live weight--and retain the positive features of local (aborigine) cattle--increased fat content in the milk, good adaptability to pasture conditions and the ability to grow rapidly during the short summer pasture period.

In addition to the positive qualities of livestock bred with the Simmental there are certain shortcomings, particularly the fact that the form of the udder is not suitable for milking under the conditions of industrial technology.

In terms of breeding, the large horned cattle are of the purebred and fourth generation--24 percent, third--43 percent and second--33 percent. Of the overall number of head of livestock crossed with Simmental 12.1 percent are of the elite-record and elite classes and 25 percent of the first class.

It should be noted that while the breeding of the livestock has improved more or less intensively, the increase in the number of head of high-class animals has slowed down somewhat, primarily because of the low milk productivity. The average annual yield of milk per cow during the Tenth Five-Year Plan was only 1,773 kilograms, with a fat content of 3.83 percent.

The improvement of the cattle crossed with Simmental is being done on the Baykal breeding farm of the Buryat agricultural institute and 30 other breeding farms and also partially from purchasing young breeding animals from other areas of the country.

Intensification of dairy farming sets for selection specialists and the breeding service of the republic the task of providing the farms and complexes with animals that are suitable for industrial technology. In selection work special attention is being devoted to evaluating and utilizing sires, taking into account the suitability of their female offspring for machine milking. A large role here is assigned to the leading reproducers of young breeding animals such as the Baykal breeding farm, the Baykal'skoye and Ivolginskoye experimental production farms and certain leading farms that breed Simmental cattle.

In creating highly productive herds that are suitable for industrial farms and complexes it becomes especially important to have purposive raising of replacement calves and non-calving young cows. To this end the republic has created the Ivolginskoye interfarm association which annually sells 2,500 non-calving young cows that are 6-7 months of age. Similar complexes have also been put into operation on the Kommunizm Kolkhoz in Mukhorshibirskiy Rayon, the Borgoyskiy Sovkhoz in Dzhidinskiy Rayon and a number of others.

Cattle raising for meat has become fairly widely developed in recent years. In order to create a specialized herd of meat cattle, sire bulls and young bulls of meat breeds have been shipped into the republic. As a result of line breeding and absorbed crossing of local Simmental cattle with bulls of meat breeds, a group of meat animals has been created.

At the present time the Kazakh whitehead, the Kalmyk and the Hereford breeds are being propagated. Of the overall number of head of meat cattle the Kazakh whitehead breed comprises 56.4 percent, the Kalmyk--35.8 percent and the Hereford--7.8

percent. Herefords are used for improving individual herds of Kazakh whitehead breeds and for industrial crossing.

A most important condition for further development of cattle raising for meat is to strengthen the breeding base. In order to satisfy the demand for breeding animals of the Kalmyk breed, two breeding farms have been created; and for the Kazakh whitehead--the Komsomol'skiy and two other breeding farms. The Mikhaylovskiy Sovkhoz engages in breeding Hereford cattle. Under the Eleventh Five-Year Plan it is intended to create one breeding farm and three breeding sovkhozes for propagating animals of meat breeds. It is planned to increase the number of female animals not only through close line young bulls, but also through the best young bulls obtained from crossing Simmental cows with bulls of meat breeds, with their subsequent propagation by the method of absorbed and reproductive crossing.

Eleven rayon interfarm associations have been organized within the republic Buryat-skotoprom association. Their work experience showed that completing the raising and fattening of young large horned cattle on the basis of cooperation is effective. By the end of the Eleventh Five-Year Plan more than 40,000 head of young cattle that are not needed to replenish the herd will be fattened in all of the rayon associations and 9,160 tons of beef will be produced. To do this, the production capacities for completing the raising and fattening on specialized farms will be increased to accomodate 60,000-65,000 cattle.

Hog raising in Buryatiya is developing mainly on the farms of Kabanskiy, Ulan-Udenskiy, Kyakhtinskiy, Bichurskiy, Pribykal'skiy and Mukhorshibirskiy rayons, that is, in places where grain is grown. At the beginning of 1981 the republic had 141,500 hogs, including 10,000 basic sows. There are 58 farms that engage in hog raising as well five specialized sovkhozes and two interfarm complexes.

The intensiveness of this branch has increased somewhat in recent years. Thus in 1980 as compared to 1975 the production of pork increased by 40 percent and the output of piglets--by 12 percent. The intensification of hog raising is carried out through specialization, concentration and the construction of new and reconstruction of existing hog farms with the introduction of modern industrial technology for producing pork on them.

The kolkhozes and sovkhozes have been given the task of increasing pork production to 13,000 kilograms by 1985 and to 16,000 by 1990.

The planned breeds are the large white and the Landras. There are five breeding farms engaged in the propagation of the large white breed of hogs and their reproduction, and they have 5,700 head. Seven lines of boars and 16 families of sows are used in the breeding work. According to the plan for breeding work, by the end of 1985 six reproduction farms will be created for raising hogs to replenish the herd.

Poultry raising is represented by three poultry farms for eggs, the Zaigrayevskaya broiler farm, four poultry farms for producing duck meat and one sovkhoz for raising geese.

Changing from keeping poultry on the floor to keeping them in cages with the installation of modern equipment made it possible to reduce the density of their distribution per unit of area of production facilities 2.5-fold.

At the present time as compared to 1968 the number of poultry has increased 5.6-fold, chicken egg production--5.1 fold, and chicken meat production--7.7-fold.

A large amount of work has been done to improve the breeds of poultry. Up until 1969 on the poultry farms of the republic the leading breed of hens was the Russian white, ducks--the Peking, and geese--the local population. In 1969 we brought in breeding eggs of hens of the Yantar'-1 cross (all three lines) and in 1975--the Belarus'-9. The acclimatization and propagation of these crosses from the time they were brought in showed that they are now very promising for egg production. In 1977, on the recommendation of the Western Siberian ZOSP we changed over to intercrossing of hens of the parent flock. The egg bearing capacity of hybrids per average annual layer during the 18 months of their life amounted to 285 eggs. The work with the hybrid poultry made it possible to significantly increase the indicators of productivity. The average egg bearing capacity of the hens throughout the trust was 232 and of the hybrids--234. As of 1 January 1981 99 percent of the poultry were of the Belarus'-9 cross.

In order to propagate the meat breed of hens we changed over to the Broyler-8 cross. In 1980 the A<sub>4</sub>A<sub>3</sub> was brought in. The utilization of these crosses makes it possible to increase the live weight of the broilers to 1,500 grams by the age of 56 days.

The Peking breed is used in duck raising and also the Peking breed of the English firm "Cherry-Belly" of two lines--maternal "102" and paternal "151."

In 1981-1990 it is intended to expand the Zaigrayevskaya poultry farm from 3.2 million broilers to 6.2 million, to expand the Sotnikovskaya to 400,000 laying hens, and to construct the Gusinoozerskaya and Severo-Baykal'skaya poultry farms for 300,000 laying hens each. With the startup of new and expansion of existing poultry farms egg production will increase to 208 million and the production of meat from all kinds of poultry--to 1,500 tons.

Horse breeding has long been a traditional branch of animal husbandry. A certain amount of work has been done in the republic to improve the quality of the horses. There is the state horse establishment with a race track, the Toreyskiy horse farm has been created for breeding Russian draft breeds, and eleven breeding farms have been organized. For planned improvement of the breeds we use the trotters (Orlovskaya, Russkaya), the heavy draft horses (Russkaya, Vladirmiskaya) and Donskaya breeds. The use of draft horses has produced good results during the past decade.

The live weight of stud horses has increased. The most crucial problem in the republic is the development of horse breeding for meat, especially in regions that have favorable conditions for maintaining studs. To solve this problem a specialized horse sovkhos and ten large meat farms have been created where technology is being introduced with elements of intensification, development taking zonal peculiarities into account. In order to increase the production of horse meat, measures are being taken to increase the proportion of mares in the herds.

Breeding work for obtaining horse meat is done through propagating local and improved horses "in themselves," and also introductory and industrial crossing with draft breeds.

All these measures for further development of animal husbandry and poultry raising will undoubtedly contribute to fulfilling the food program earmarked by the decisions of the 26th CPSU Congress.

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## LIVESTOCK

### MEAT PROCUREMENT LOSSES NOTED IN KIRGHIZ SSR

Moscow PRAVDA in Russian 16 Apr 82 p 2

[Article by Ye. Grigor'yev and V. Shirokov (Kirghiz SSR): "On the Path to the Meat Combine"]

[Text] The chairman of the Zhivprom association in Moscow Rayon, S. Suyundukov, was satisfied. The hogs were received from the Kaindinskiy meat combine without delay.

"If only it were always this way!" he says. "But is it ever any other way?"

"It is," answered Samiddin Suyundukovich. "Especially in the autumn. The livestock sometimes stand around for two or three days and lose weight."

How can this be avoided?

This is far from an idle question and it is not simple. It is sometimes extremely difficult to bring what the farms produce to the consumers promptly and without losses. This is impeded by imperfections of the processing base, receiving, accounting for raw materials and products. Specialists and practitioners suggest various variants for solving these problems.

At the meat combines of Narynskaya and Issyk-Kul'skaya oblasts which we had occasion to visit they think that it is necessary to change over more quickly to receiving livestock in slaughtered weight. This system is being practiced as an experiment by the Kaindinskiy and Kyzyl'Kiyskiy combines.

And the suppliers, as we see, are responding well to the innovation. The art of production has advanced and there are fewer conflicts with the clients. Mistakes have also been revealed however. On the way to the cooler the products are essentially neglected. True, there is someone in charge here. They are representatives of the republic Ministry of Agriculture who are supposed to check on the correctness of the weighing of the animals and the observance of the technology for processing the carcasses. That is the way it is supposed to be. But in reality the control is weak. Each day the processing enterprises find more than 500 cases of various kinds of theft. The republic minister of procurements, M. Umuraliyev says: "The receipt of livestock in slaughtered weight is a promising direction. But meat industry workers allow many abuses in the processes . . . ."



It is known that the sale of livestock and poultry is planned for the farms in live weight. How can the combines keep accounts with their suppliers in terms of the quantity and quality of meat? These products would have to be changed back into live weight again. It would seem that there is no difficulty here: the appropriate coefficients exist. But they are still imperfect. And therefore fairly strange situations frequently arise in the recalculations.

The Kyzyl-Kiyskiy combine received from the Kolkhoz imeni XXII parts"yezd and Kommunizm Kolkhoz in Aravanskiy Rayon 47 head of large horned cattle with a live weight of 18,758 kilograms. The farms were credited with 19,212 kilograms. An extra 454 kilograms appeared in the plan. These, one may say, are products that will not reach the counters of the stores. For they simply do not exist. They exist only in the accounts. And the Kaindinskiy combine alone credited the kolkhozes and sovkhozes with 64 tons of such "meat" during five months of last year.

To whose advantage is this? However strange it may be, it is to the advantage of both the farms and the combines. The processing enterprises have less need for labor force, and they do not need to acquire feed which was previously used for maintaining the animals in the interim period. As for the kolkhozes and sovkhozes, they are not so worried about their own good in this case, and put up with mistakes hoping that with the help of transfer coefficients their losses will be made up.

There are difficulties involved in releasing livestock in live weight too. One might have to keep the herd at the gates of the combine for several days. It is known that the animals lose weight during these transfers. Moreover, the processing enterprises frequently create above-normative supplies of meat at the expense of their partners. It is difficult for the suppliers to defend their interests for the herds are frequently accompanied by people who do not have the appropriate knowledge. Hence mistakes in filling out documentation.

The farms sustain a good deal of damage in the transportation of animals. The Chon-Kemin Sovkhoz, for example, sent a batch of large horned cattle weighing 10,321 kilograms on 28 January. They were given credit for 9,880 kilograms. One can give many examples like these. Because of the fact that the livestock are shipped over long distances in unequipped vehicles and they are received with violations of technology, in the republic as a whole thousands of tons of meat are lost on the way from the farm to the meat combine. The chairman of the Novyy Put' Kolkhoz in Issyk-Kul'skiy Rayon, V. Chirkin, sees the solution to the problem primarily in arranging direct ties with the processing workers. He refers to the experience of his own farm:

"Previously our livestock stood for several days before the gates of the Rybachinskiy Combine. It was heartbreaking to see the gaunt sheep. Now stable contacts have been established with the enterprise and we agree precisely on the schedule for the release of the animals. The receiving worker comes with the trucks on the designated day."

The suppliers, in order to obtain the livestock locally, ship it with transportation from the combines. The processing enterprises are against this. Their main conclusion, "why must we be responsible for the losses of agriculture? Who will write them off?"

It is a significant question. For when shipping sheep from the farm to the combine under the conditions of Kirghiziya with its difficult mountain roads each of them sometimes lose almost one-fifth of their live weight. Yet the norms for the output of meat at the enterprises are established based on the idea that the livestock are delivered to the shops by the farms themselves, not taking into account losses on the way. How does one correctly approach a solution to this problem?

The first secretary of the Kochkorskiy party raykom, K. Aknazarov, thinks that the kolkhozes and sovkhoses should conclude contractual agreements with the meat combines. On the basis of these they can develop calendar schedules for the delivery of livestock. In any case the losses will be reduced considerably. Now the farms are not legally connected to the meat combines. The procurement workers are employed in the Zhivprom system, an intermediary organization. It would obviously be expedient, in order to strengthen direct ties between animal husbandry workers and processing workers, to transfer the procurement functions to the latter. And in order to reduce the combines' losses during the shipment of cattle, the rebate norms should be revised. The meat combines of the republic have only six cattle cars. There are none at all in Narynskaya Oblast. Transportation has to be rented from the drivers, and it is not always possible to do this.

In conversations with us managers of farms and party and soviet agencies of Kirghiziya spoke about how to plan livestock procurements. It is best to use the slaughtered weight as a basis. Then there would be no need for transfer coefficients. It was also suggested that the system for releasing livestock be revised and that a product quality service be created on the kolkhozes and sovkhoses. Not a single kilogram of meat or milk could be sold without its knowledge. Such an experiment, incidentally, is being conducted in Fruzenskiy Rayon with good results. Why not extend it to all of Kirghiziya?

The abundance of ideas and suggestions is an indicator of how crucial the problem is. Of course it is impossible to solve it unilaterally. It is clear that the meat does not "grow" in cellophane packages on the conveyors of the combines. The processing enterprises should relieve animal husbandry workers of concerns that are not related to production. Primarily those having to do with the delivery and release of livestock. It is obvious that receiving points should be created in the local areas. This cannot be done without help from the USSR Ministry of the Meat and Dairy Industry. The planning agencies should take such prospects into account and revise the norms for supplying processing enterprises with cattle shipping transportation, coolers and equipment which would help to preserve all of the meat and wastes from slaughter.

Reducing production expenditures is one aspect of the matter. It is important to make the economic interests of the suppliers and the collectives of the combines coincide more closely. We are speaking about creating agro-industrial associations. While giving a worthy evaluation to the experience that has been accumulated in other republics, Kirghiziya is searching for its own path. For example, state-kolkhoz associations for fattening livestock are being created here. They have a good material and technical base and land, and they have the necessary personnel. Today these associations exist in almost every rayon and they annually sell more than one-third of the livestock that are sent for processing.

Specialists think it expedient to include both meat combines and their branches in the associations. This will require strengthening the material base, constructing a number of new facilities and improving the ties among the partners. In a word, there are many concerns. But expanding the network of the processing industry and bringing it closer to the places where the products are produced constitute a requirement of the time. As was already noted, the republic sustains immense losses because of the distance of the shipments.

Little more than half of the overall quantity of livestock of the highest nutritional condition reach the combines of Kirghiziya. Omissions in the work of the animal husbandry workers are also manifested. But not only them. The fact is that, according to the GOST's, livestock of the highest and average nutritional condition are included in one category of meat--the first, and they are sold to the consumers at one price. But the meat combines keep accounts with the suppliers individually for livestock of the highest and average nutritional condition, and the prices of the former are considerably higher than those of the latter. Therefore it is advantageous for the processing enterprises to reduce the nutritional condition of the animals, for they must absorb the difference in prices. It is an abnormal phenomenon.

The capacities of the meat combines in Kirghiziya make it possible to receive 900 tons of livestock a day. But an average of no more than 600 tons come in.

This is an average. There are also especially busy weeks and months. The fact is that almost half of all the meat procurements are mutton. This is a seasonal delivery. Its "peak," as they say, is in September-October. And then the enterprises cannot keep up with the processing. The sheep raisers bear immense losses. But the USSR Ministry of the Meat and Dairy Industry does not always take these specific circumstances into account. At the time of mass release of livestock the Narynskiy meat combine, for example, is capable of receiving only half of this number of head. All the rest of the livestock must be driven 180-420 kilometers to other points. Yet the problem of reconstructing this enterprise has remained unsolved for many years.

In a word, the working out of the entire system for release and receipt of livestock and economizing on resources are acquiring special significance today. This system must operate with the precision of a well adjusted mechanism, in such a way that the animal husbandry workers have conditions that are equal to those of the processing enterprises.

The more rapidly this is achieved, the more rapidly the economy of agriculture and branches associated with it will become stronger.

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## LIVESTOCK

### ACCELERATED DEVELOPMENT OF HOG BREEDING IN ALTAY URGED

Moscow SOVETSKAYA ROSSIYA in Russian 8 Apr 82 p 3

/Article by B. Prokhorov and Yu. Shakutin, special correspondents of SOVETSKAYA ROSSIYA: "Altay's Meat Shop"/

/Text/ Altayskiy Kray is often called the "Siberian granary." However, it does not produce grain alone. Its share in meat deliveries is significant and weighty. What does Altay's "meat shop" now represent? What are its capabilities? In what direction should it be developed? These questions do not arise accidentally now.

During the 10th Five-Year Plan the kray's kolkhozes and sovkhoses delivered to the state 136,000 tons of meat less than during the preceding five-year plan. Nor did the situation improve at the beginning of the current 5-year period. Last year the kray again remained a debtor. Evidently, Altay's "meat shop" is "skidding," although it has a big potential. There is a sufficient livestock population, animal husbandry farms have been reconstructed and new ones have been built and inter-farm cooperatives have become widespread. At one time specialization was carried out and Svinoprom /Association for the Production of Pork on an Industrial Basis/ and Skotoprom /Administration of Livestock Raising/ were made separate subdivisions. In brief, meat production could grow and grow, but there is no noticeable progress.

Meanwhile, Altay's "meat shop" is the largest in Siberia and it assumes special importance during this five-year plan. The strengthening of the entire food base of Siberia--a vast region rapidly building up productive forces--largely depends on its "productivity."

At first glance it is quite simple to answer the question as to why the kray's "meat shop" operates below its capabilities. Of course, the constant shortage of feed and its low quality are the main reasons. If this year the kray has managed to store feed for animal husbandry only in terms of 69 percent of the need, is it possible to seriously expect a significant increase in output?

Why is there a feed shortage every year?

We talked with V. I. Pakholkov, deputy chairman of the kray planning commission.

"You cannot even imagine the battles that are fought in this office when the plan is assigned. For example, a representative of Svinoprom sits at one side of the table and colleagues from the rayon face him. And it begins..."

It is not difficult to guess what the subject of the dispute between the parties is. Any "prom" tries to see to it that the grain delivery plan is lower. One can understand it. The farms are specialized. Their main function is to fatten livestock or to raise hoglings. Of course, they want to leave more grain for livestock. This is not quite advantageous for the rayon. The plan as a whole will not be lowered for it anyway. It will be necessary to apportion grain procurements to other farms. They have plenty of their own livestock, which also must be fed. As is well known, milk yields or weight gains cannot be obtained without feed...

Usually, a plan division leads to nothing. All the people quarrel until they are hoarse and then reach a compromise decision so that no one is offended. The principle on which the division is based is firm: At first grain, then feed. Whether it is correct is another question. The main thing is that it operates strictly, although it would seem that especially today the state needs meat no less than grain. Therefore, at first feed should be provided for livestock according to the existing population and the meat production plan and then it should be poured into bins. But this does not happen...

There seems to be one way out in this situation: To increase the yield of the Altay field, to strive for its stability, to improve the structure of the areas sown with fodder crops and to vary them. As everywhere in Siberia, the percent of pulse and other fodder crops is still low in the kray. The best predecessors and fertilizers--in brief, principal attention--are given to wheat. It occupies the main place in crop rotations. As we see, feed, without which there is no meat, is in the second place in the field. One can raise an objection: But wheat is also feed. Unfortunately, yes. It is almost the basis in home-grown forage and mixed feed. Therefore, we tear the grain balance to pieces between the granary and feeders..., although it was demonstrated a long time ago that "mixed wheat feed" is not better in its quality and yield in weight gains.

Nevertheless, measures are taken to improve feed production in the kray. They will certainly produce results. The structure of crops and increase in the harvests of peas and other pulse crops will also have an effect. But when? The situation requires rapid and decisive actions. An increase in the yield from the "meat shop" is needed now, not tomorrow. That is why, in our opinion, along with the efforts made in Altay to strengthen the feed base, other measures are also needed.

A more efficient utilization of feed is one of them. Yes, there is not enough of it, especially after such unproductive years as last year. Therefore, it is important to attain an economical expenditure of feed per quintal of weight gain. As yet this expenditure is unjustifiably high. A total of 12.5 quintals of feed units per quintal of beef and 7.2 quintals of feed units per quintal of pork are now expended in the kray. It is clear that this is one of the potentials that must be activated and the sooner, the better.

Intensification of specialization in meat production is the second and perhaps the main measure.

It was already stated that it was carried out in the kray at one time. More than 5 years passed since then. However, even today, for example, the share of all the farms of Skotoprom in meat production makes up only 17 percent and of Svinoprom, even less than that--6.4 percent.

Let us now see what Svinoprom represents, because the efficiency of Altay's entire "meat shop" largely depends on the state of affairs in hog breeding, a sector making it possible to increase the hog population and to fatten it, that is, to accelerate meat production, in a short time.

Today there are 19 farms in the Svinoprom system. Basically, these are sovkhoses. There are only two kolkhoses. There are 200,000 hectares of arable land at their disposal. They keep 40,000 head of large-horned cattle and only 192,000 head of the basic stock--hogs. Svinoprom farms deliver 5,500 tons of beef, 26,000 tons of milk, 38,000 tons of grain, 35,000 tons of sugar beets and 4,500 tons of potatoes. But how much pork? Last year, 13,800 tons. Judging from this distribution, the "prom" specializes rather in milk than in pork.

How is meat production provided with feed? Last year the association needed 224,000 tons of feed units. After all the settlements of accounts with the state 171,500 tons, or 72 percent of the need, remained.

It turns out that the association is specialized in name alone, but, in fact, it is a diversified farm with all the ensuing consequences. Specialization has finally begun to assume more distinct forms only recently. In the "prom" itself the share of pork production has increased from 28 to 49 percent.

It was possible to increase the areas sown with pulse crops from 2 percent in 1976 to 36 percent last year. The areas sown with pumpkin and marrow squash could be expanded, excellent mixed silage could be obtained and, thus, forage could be saved. A total of 1,000 hectares were planned for them and faced trenches were built for 30,000 tons. But ... 50 will be sown. The entire area was not provided with seeds.

Any specialization is based on a firm principle envisaging the singling out of a main sector, for the sake of which all production is organized. If it is violated, can positive results be expected? Let us analyze this. Only 5 out of the 17 farms of Altay's Svinoprom produce 52 percent of pork. All the others account for downright crumbs. Here is one such farm--the Sokolovskiy Sovkhoz. It keeps 1,500 cows, more than a large dairy farm. Moreover, a "train" of 1,000 head drags after this herd. However, the basic product--pork--occupies only one-fifth in the structure of sovkhos output. Where are the concentration and specialization here? The majority of farms are such.

The whole problem is that the "prom" was not established on an empty place. Ordinary diversified farms formed part of it. They have remained such to this day. Of course, specialization cannot be carried out in 1 year. This is a prolonged and troublesome process. Nevertheless, it obviously has been dragged out. There is no clear program on the direction in the specialization of a specific farm and feed production has not been reorganized properly.

We had occasion to witness a remarkable discussion between K. N. Kuznetsov, chief of the Svinoprom Association, and V. T. Ustimenko, director of the Belovskiy Sovkhoz. But first we will explain why there was a discussion with the director of this farm.

Hoglings are raised according to the latest technology on the Belovskiy Sovkhoz. Three-breed crossing is used. The young stock obtained is strong and healthy. The reliable production base enabled the workers of the Belovskiy Sovkhoz to begin an interesting movement. Local hog breeders learned to raise 1,000 hoglings annually. Many of them were awarded orders and two, the title of Hero of Socialist Labor. For example, last year Raisa Zakharovna Myshkina raised 1,889 hoglings. In all, the sovkhos obtained 70,500 head of young stock.

Having mentioned the last figure, the director sighed heavily:

"Only there is no pork..."

"How is that?"

"We distribute hoglings..."

"You place them for fattening?" we specify.

"If it were only so."

The director began to enumerate the organizations to which they sell hoglings and soon became confused in his calculation--to more than 30 different organizations. The reason? Still the same: incomplete specialization.

Even earlier K. N. Kuznetsov, who was a new man in the association, but, apparently, embarked on the job entrusted to him with enthusiasm, said that, having examined his "farm," he saw the miscalculation made from the very beginning. A strong foundation for the development of hog breeding was not established and few large fattening complexes were built in Altay at one time. In Kuznetsov's opinion, they are the basis for the sector. He cited as an example his neighbors, the people of Novosibirsk. Why did they organize pork production more rapidly? They have a fattening base. It is no problem to obtain and raise tens and sometimes even hundreds of thousands of hoglings annually. It is more difficult to fatten them. Barns, preferably with industrial production technology, are needed. Finally, guaranteed feed is needed.

The lag in the hog breeding sector in the kray is not the result of 1 year. Therefore, it is difficult to assume that the kray administration of agriculture did not examine the reasons for it. Simply, it did not manifest persistence and a principled nature to rectify the situation. Measures have been taken recently. But how much has been neglected!

It has been suggested that the Belovskiy Sovkhoz, along with raising hoglings, engage in their fattening. For this purpose in 1 to 1½ years it is necessary to build 20 fattening houses, each for 1,000 head. A number of other sovkhoses also have such a program. In order to implement it, funds are being sought and measures for the strengthening of the feed base are being developed.

However, these are still plans. The director of the Belovskiy Sovkhoz quite correctly doubted that it would be possible to implement them easily. Well, it is possible to build fattening houses if Biysk enterprises provide assistance, as



they promise. It is also possible to obtain and raise hoglings... But what is to happen with feed? On the sovkhos 10,000 out of 15,000 hectares of arable land are under grain crops. Even if all the grain remains on the farm, it will not be sufficient for fattening...

The way out of this situation seems as follows: It is proposed that farms engaging only in feed production are designated in regions where the fattening of hogs and large-horned cattle is concentrated. Specialists have studied this variant and calculations confirm the correctness of this solution. In a short time it is possible to increase meat production and to create realistic conditions not only for the fulfillment of the annual plan, but of the five-year plan as a whole.

Nevertheless, this is a temporary solution of the feed production problem within the framework of the same Svinoprom. The further and genuine specialization of "prom" farms, a sound correlation of crops in their rotations with preference for fodder crops and a more flexible planning in the distribution of grain deliveries are the main paths. For example, it is quite obvious that certain privileges in deliveries should be introduced for farms engaged in fattening. To be sure, it makes no economic sense to obligate them to deliver the bulk of grain and then to bring it to these same farms from miles and miles away.

In conclusion I would like to note the following: It may seem that all the talk about specialization makes no sense, because the share of "proms" in meat production in Altay is not big. Most products are produced in kolkhoz and sovkhos sections. In connection with this it would be much more useful to examine their work and to see whether all the potentials are utilized here. To be sure, they exist in farm sections. They include a more efficient utilization of feed, shortening of the time of fattening of animals and campaign for an increase in weight gains. These potentials must be activated. However, speaking about the need for accelerated specialization, primarily of the hog breeding "prom," we have in mind the main general potential of the "meat shop." The need for changing the structure of commodity meat was discussed at the zonal conference of scientists (Novosibirsk, 1980), where problems connected with the provision of Siberia with food products from its own production were analyzed. Preference should be given to the development of early ripening sectors, primarily hog breeding. According to the calculations of scientists, the proportion of pork in the structure of the "meat shop" should be no less than 30 percent. Only in this case is it possible to expect a rapid growth of meat production. In Altay last year the proportion of pork comprised only 14 percent.

Of course, it is also necessary to increase beef production. Incidentally, nor is the situation better in this Altay "prom."

If we are to talk about the realistic potentials of Altay's "meat shop" during this five-year plan, in our opinion, they lie in an accelerated development of hog breeding. The more attention is given to this sector, the sooner the yield will follow.

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## LIVESTOCK

### MECHANIZATION CALLED FOR IN KAZAKH MEAT INDUSTRY

Alma Ata SEL'SKOYE KHOZYAYSTVO KAZAKHSTANA in Russian No 2, Feb 82 p 29

[Article by I. Perepletina, graduate student of the Alma Ata Institute of the National Economy: "Where Does the Final Result Begin"]

[Text] Kazakhstan plays a leading role in the development meat cattle raising. All necessary conditions are being created in the republic for further development of the meat and dairy industry and increased production of the most important kinds of food products. "We are speaking about increasing the number of head of livestock in all oblasts without exception, organizing intensive fattening and grazing, obtaining large weight gains and selling the state large horned cattle weighing no less than 400-450 kilograms," said Comrade D. A. Kunayev, a member of the Politbureau of the CPSU Central Committee and first secretary of the Central Committee of the Communist Party of Kazakhstan, in his speech at the 15th Congress of the Communist Party of Kazakhstan. There are now 80 meat and meat and dairy sovkhoses in the republic. By the beginning of this year there were 8.7 million head of large horned cattle, 65.2 million sheep and goats, more than 3 million hogs and 1.3 million horses. The republic's animal husbandry base continues to develop and grow stronger.

During the past five years the republic's population has increased by approximately 5.9 percent and the gross output from agriculture has increased by 12.3 percent, including 11.9 percent for animal husbandry. These figures tell a great deal. They also show that Kazakhstan holds third place in the country after the RSFSR and the Ukrainian SSR in terms of the volume of gross output and meat production. But nonetheless, because of certain reasons, during the four years of the Tenth Five-Year Plan the average annual absolute increase in meat decreased by 24,200 tons. In order to eliminate these shortcomings the Main Directions for the Economic and Social Development of the USSR During 1981-1985 and the Period up to 1990 stipulated that the Kazakh SSR further develop animal husbandry, mainly as a result of meat cattle raising and sheep raising. The average annual increase in meat (in slaughtered weight) must be increased during the five-year plan to 1.2-1.3 million tons with a simultaneous increase in the number of head of all kinds of livestock and their increased productivity. The republic's meat industry has large reserves for increasing the production of meat products not only as a result of enlisting additional raw material resources, but also as a result of more efficient utilization of them.

Economy in the expenditure of raw material and more complete and efficient utilization of it are most important ways of reducing food outlays, increasing the volume of products and increasing the economic effectiveness of production. The output of boneless meat, expansion of the production of large-piece semimanufactured products for sale to the population, increased output of small-piece and portion semimanufactured products as well as meat and bone semimanufactured products and items from byproducts of the second category will not only update the assortment of meat products but will also serve to extensively economize on meat raw material as a result of increased output of products and elimination of production losses. Increasing the production capacities of the meat industry is not limited to just new construction. They also increase as a result of reconstruction, expansion and technical rearmament of many existing meat combines. The technical level of the entire branch will rise. Assimilation of newly introduced capacities and the organization of new productions, particularly quick-frozen prepared meals, will be accelerated.

The insistent demands of modern times include comprehensive mechanization and automation of production processes, the introduction of the most progressive methods of technology, and the implementation of measures for mechanization and automation of subsidiary productions--compressor and water canal installations, loading-unloading and transportation operations, measures for further use of gas for smoking devices, augmenting the machine tools of the repair and mechanics shops and so forth.

An important task of the meat industry is to improve the quality and the nutritional value as well as the taste of meat products. Therefore primary significance is attached to extensive utilization of protein substances of animal and vegetable origin, an increased proportion of cooled meat in the overall sale of meat to the population, and increased utilization of blocks of cooled meat for industrial processing.

A demographic analysis has shown that the task of increasing labor productivity is becoming exceptionally important at the present time. Technical progress and scientific organization of production make it possible to achieve an increase in the production volume of the meat industry without increasing the number of workers and, in a number of cases, even reducing this number. Questions of organizing rhythmic operation of the enterprises are being placed on a higher level. The decree of the CPSU Central Committee, "On Further Development of Specialization and Concentration of Agricultural Production on the Basis of Interfarm and Agro-Industrial Integration" (1976), determined the main path of raw material supply for the meat industry--the establishment of stable production and economic ties between enterprises of the meat industry and animal husbandry farms. Strengthening the production ties between the meat industry and agriculture and all-around assistance on the part of the latter in raising the technical and organizational level of production are of great importance for increasing the economic effectiveness of all meat production. It says in the report of the chairman of the Kazakh SSR Council of Ministers, Comrade B. A. Ashimov at the 15th Congress of the Communist Party of Kazakhstan: "It is necessary to engage more purposefully in qualitative improvement of the livestock, the development of meat and dairy cattle raising, hog raising and horse raising, increasing the proportion of females in the herd,

and eliminating their barrenness. We must expand intensive fattening and completion of the raising of young animals and provide for maintaining the animals. We must continue to work to transfer animal husbandry to an industrial basis through further deepening of specialization and concentration of production." Planned delivery of livestock and poultry to the enterprises of the meat industry throughout the year will provide for uniform loading of the meat combines and will make it possible to process additional raw material with the same production capacities.

The internal reserves and possibilities of each meat industry enterprise that are revealed as a result of deep searching and put into operation, and the utilization of powerful economic levers and stimuli of the economic reform make it possible not only to fulfill, but also overfulfill the tasks set for the branch. In 1981-1985 new indicators for planning the production volume and labor productivity will be used in the meat industry--the net (normative output) planning of earnings according to norms per ruble of output, and the distribution of profit according to stable norms. These and other measures for improving planning will increase the efficiency and improve the quality of the operation of the enterprises. The fulfillment of these tasks requires a high level of development not only of the meat branch, but also of the entire national economy.

And another thing. Satisfaction of the demands of the population for meat products cannot be understood as only a qualitative task, as an achievement of a certain level of production; it is also a task of scientific distribution and consumption. The meat industry will always be faced with tasks for further improvement of production, comprehensive mechanization and automation of work, increased labor productivity, reduced production costs, improved quality of meat products and the production of new kinds of meat items that more fully satisfy the tastes and demands of the population.

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## LIVESTOCK

### KIRGHIZ SHEEP RAISING, WOOL PRODUCTION STRESSED

Moscow SEL'SKAYA ZHIZN' in Russian 6 Apr 82 [no page given]

/Article by T. Usubaliyev, 1st secretary of the Central Committee of the Communist Party of Kirghizia: "Fleece Complex of Kirghizia"/

/Text/ The decisions handed down during the 26th party congress and the November (1981) Plenum of the CC CPSU directed the workers of Kirghizia, and also those in other fraternal republics, to achieve a sharp improvement in animal husbandry operations and a considerable increase in the production of farm products. Last year the republic over-fulfilled its plans for selling all types of animal husbandry products to the state. The procurements included 220,100 tons of livestock and poultry, 439,400 tons of milk, 273.5 million eggs and 42,100 tons of fine and semi-fine wool. Large tasks confront the livestock breeders during the second year of the five-year plan.

Sheep raising is the chief branch of animal husbandry in the Kirghiz SSR. Our republic has occupied third place for a considerable period of time in terms of number of sheep and it occupies first place in the country in terms of wool and mutton production per unit of agricultural land. Over the past 20 years, the production of mutton and wool has doubled. Moreover, the proportion of the more valuable Merino wool has increased from 4.6 to 71 percent during the past 10 years. Kirghiz fleece provides the highest yields of pure fibre and almost 80 percent of all of the wool is of 1st class quality.

Fine results have been achieved and yet we are still not satisfied. The republic's party organization clearly recognizes that tremendous opportunities are available for further raising the effectiveness of sheep raising. For example, one such reserve is that of raising all of the shepherd brigades to the level of the leading brigades. Last year, a fine yield of young stock was obtained throughout the republic -- 97 lambs from every 100 ewes. At the same time, 123 farms, or one out of every three, obtained more than 100 lambs, and for Issyk-Kul'skaya Oblast on the whole -- 103 lambs, for every 100 ewes. Roughly 1,120 shepherd brigades obtained 120 or more lambs and 45 brigades -- from 150 to 190. Each year the republic obtains more than 4 million head of young stock. Thus it is enough to raise its yield by only one percent in order to obtain 40,000 additional lambs! This constitutes a very large reserve.

Of equal importance is the need for fully protecting the livestock. In high-mountain areas, where the air temperature falls to 30-40 degrees during the winter,

it is impossible to carry out the operations in the absence of good facilities. Measures are being undertaken throughout the republic aimed at intensifying the construction of sheepyards. Sheepyards sufficient for 314,000 animals were erected during 1981 and this year the plans call for similar facilities to be constructed for 410,000 sheep. But the shortage in sheepyards continues to be one of the reasons for the losses in sheep, especially lambs. Unfortunately, the planning organs do not always take this fact into account and thus they allocate insufficient funds for this purpose. They should be reminded once again that if adequate livestock facilities were available throughout the republic, 300,000 additional lambs could be obtained annually.

At the present time, many farms have converted over to winter and early spring lambing schedules. Lambs obtained during these periods are more hardy, they grow better and they are better able to endure cold weather. An increase takes place in the yield of products. Such animals are sheared in the autumn, providing a kilogram or more of lamb's wool and by the end of the year they have reached a live weight of 35 kilograms. The benefit is perceptible. The production of mutton increases, a savings is realized in the use of feed and it becomes possible to increase the proportion of ewes in a herd. And this is the true path to be followed for raising the efficiency of the branch. Permit me to draw a comparison. At the Krasnaya Zarya Kolkhoz in Leninpol'skiy Rayon in Talasskaya Oblast, on the average for the past 3 years the proportion of ewes in the herd was 67 percent and at the Manas Sovkhoz in Kirovskiy Rayon in this same oblast -- only 44. With the feed expenditures being identical, the kolkhoz produced 28 kilograms of mutton and 5 kilograms of wool and at the sovkhov -- one third less, despite the fact that the Manas Sovkhoz is on the whole considered to be a good farm. In short, even leading farms, by improving the structure of their herd, are able to achieve a considerable increase in their production of wool and mutton.

The prospects in this regard are great for the republic as a whole. Indeed the proportion of ewes is still low -- only 47 percent. If it were raised to 60 percent, the production of mutton would be increased to 20 kilograms per head instead of the present figure of 12 kilograms per head. This work is being carried out in all areas. It has been determined that in regions of intensive farming the number of ewes in a herd can be raised to 65-70 percent and on farms in other zones -- to 60 percent.

Thoroughly checked computations reveal that it will be possible during the next 10 years to produce 1.7 million tons of mutton in live weight -- one half million more tons than during the preceeding decade and wool in delivered weight -- 470,000 tons -- 80,000 tons more. A great amount of work must be carried out if the planned goals are to be achieved.

The republic's sheep raisers are constantly receiving invaluable assistance from the party and Soviet Government. In the decree of the CC CPSU and the USSR Council of Ministers entitled "On the Further Development of Sheep Raising in the Kirghiz SSR," adopted in January 1981, the prospects for development of the branch were clearly defined and specific measures for solving its problems were outlined. The necessary funds and material resources are being made available to the republic. It is difficult to exaggerate the importance of this document, since it provides the republic's party organization with a broad program of specific actions for improving sheep raising operations. The Plenum of the Central Committee of the

Communist Party of Kirghizia prepared specific measures for the further development of this important branch.

First of all, we assigned the task of developing and strengthening the feed base. Over the past 5 years, the production of all types of feed (excluding pasture feed) increased by 25 percent. However, the level achieved by no means is satisfying the feed requirements of all of the republic's animal husbandry branches. What specific methods should be employed for improving feed production? First of all, all available lands should be utilized in a rational manner. Their productivity will be raised mainly through the introduction of leading agricultural practices and radical improvements in the natural pasture and haying lands. Improvements in the structure of the areas under crops opens the possibility of obtaining more nutrients, particularly protein, from existing areas. Towards this end, we will expand the sowings of such crops as alfalfa, sainfoin, corn, grain crops, fodder beets and pulse crops, which under our conditions furnish the greatest amounts of feed units per hectare.

In speaking before the 26th party congress on the subject of strengthening the feed base, Comrade L.I. Brezhnev emphasized the need for expanding the sowings of forage grain crops and raising their proportion in the gross yield of grain. We are convinced regarding the high feed value of these crops and we have placed them at the service of animal husbandry. The grain corn yield is increasing; last year it surpassed 58 quintals per hectare. This year, following the introduction of an industrial technology, the republic's corn growers have resolved to obtain no less than 60 quintals of grain per hectare. Soybeans have earned a place on our fields. Approximately 54,000 quintals of protein-rich grain was harvested from an area of 4,500 hectares. Individual farms are obtaining 25 quintals of soybeans per hectare. In the future, the area devoted to this crop will be raised to 30,000 hectares and this will make it possible to produce 21,000-22,000 additional tons of protein.

A substantial source for strengthening the feed base is that of perennial grass -- alfalfa and sainfoin. During the next few years, we will strive to raise the average yield of hay in the valley regions to 80-120 quintals per hectare and in the mountains -- to 60-70 quintals

In solving the feed problem a special role will be played by the development of new irrigated lands. For this present five-year plan, considerable funds have been allocated to the republic for the carrying out of land reclamation work. The party organizations are exercising systematic control over the course of construction work on aquicultural projects. Thus the Talasskaya Oblast Party Committee and the oblast executive committee are devoting daily attention to the problems concerned with construction of the large mainline Kairma Canal and they are furnishing its collective with specific assistance. The kolkhozes and sovkhoses in Talasskaya Oblast recently completed the construction of two canals. Over a period of 3 years, the area of irrigated land in the oblast has been increased by 1,700 hectares.

We are not encountering success in all areas. Tyan'-Shan'skiy, At-Bashinskiy, Ala-Bukinskiy and Moscow rayons failed to fulfill their plans for placing irrigation installations in operation. The central committee of the communist party of the republic and the oblast party committees have studied the reasons for these and some other rayons falling behind and they are undertaking measures which are already producing initial results -- the land reclamation rates are increasing.



It is hoped that the USSR Ministry of Land Reclamation and Water Resources will provide us with more effective assistance in carrying out this work. As yet, the required construction materials and capital investments are still not being made available for the projects planned.

When meadow lands are used judiciously, fertilizer is employed in a thrifty manner and waterings, undersowings of grasses and all remaining agrotechnical measures are carried out, the productivity of these lands does not decline but rather it increases gradually. In view of this fact, all of the republic's pastures have been assigned to specific farms. In this regard, it is believed that the time is at hand for establishing the post of agronomist for the meadow and pasture economy at the kolkhozes and sovkhoses and also for creating specialized production subunits at these farms for improving the pasture and haying lands.

Considerable effort is being expended throughout the republic aimed at converting animal husbandry over to an industrial base. Complexes are already in operation in Talasskiy, Keminskiy, Naukatskiy and a number of other rayons. Labor productivity is higher here and the weight increases in the sheep are greater, with considerably less feed consumption compared to the flock fattening method. Mechanized sites for the fattening of lambs have proven their worth on a number of farms. In particular, the efficiency of such sites was high at the Pobeda Kolkhoz in Tyupskiy Rayon in Issyk-Kul'skaya Oblast. And at the above-mentioned Krasnaya Zarya Kolkhoz in Leninpol'skiy Rayon in Talasskaya Oblast, all of the sheep are being maintained at special feed sites. As a result, a sharp increase has taken place in the productivity of sheep raising. Yearling lambs are achieving a weight of 45-50 kilograms. Each of them is providing 4.5-5 kilograms of wool.

All of these factors are exerting a beneficial effect on the republic's indicators. Last year, the average delivery weight for sheep reached 39 and in Narynskaya Oblast -- 43 kilograms. Initially we are striving to raise the delivery weight for sheep at backward farms and in backward rayons to the average for the republic. The implementation of this measure alone will furnish several thousand additional tons of mutton.

The republic's party organization is undertaking measures to intensify party influence in the branch, in which more than 4,500 communists are engaged at the present time. In the final analysis, success in the further development of sheep raising is dependent upon how well the latter carry out their obligations. The republic has many wonderful masters of their work, such as heroes of socialist labor Tashtanbek Akmatov of the Kolkhoz imeni XXII Parts'yezda in Tonskiy Rayon, Bazylbek Aytbayev of the Beywheke Kolkhoz in Leninpol'skiy Rayon and Dzhamake Tynayev of the Orgocherskaya Experimental Station for Sheep Raising. An important task of the rural party organizations is that of making their experience available to all.

For having achieved the highest indicators in the all-union socialist competition during the last two wintering periods, the republic was twice awarded the Diploma of the CC CPSU, the USSR Council of Ministers, the AUCCTU and the Komsomol Central Committee. All of the prerequisites have now been created for the successful completion of the wintering campaign. The republic's sheep raisers are fully resolved to steadily increase their contribution towards the fulfillment of the country's food program.

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## REGIONAL DEVELOPMENT

### TONSKAYA OBLAST AGRICULTURAL ADVANCES

#### Livestock Production, Feed Procurement

Moscow EKONOMICHESKAYA GAZETA in Russian No 11, Mar 82 p 16

[Article by V. Dubrovin (Tomskaya Oblast)]

[Text] For success in the all-union socialist competition, according to the results for 1951, Tomskaya Oblast was awarded the Challenge Red Banner of the CPSU Central Committee, the USSR Council of Ministers, the AUCCTU and the Central Committee of the Komsomol. Agricultural workers made a large contribution to this victory. From year to year they increase the production of animal husbandry products. Thus in 1981 they produced 12 percent more milk, 32 percent more meat and 48 percent more eggs than in the first year of the Tenth Five-Year Plan. What organizational-management and economic measures provided for such an increase in production. This is discussed below.

#### 1. The Path to the Earmarked Goals

The efforts of the oblast party organization have been directed towards strengthening the material and technical base of animal husbandry and improving the conditions for the labor and recreation of farm workers. In short periods of time many facilities have been reconstructed, a poultry farm for 6 million broilers has been put into operation, the first section of a hog complex to accommodate 54,000 head has been put into operation. During the past year an average of 2 square meters of dwelling space per agricultural worker has been constructed.

A special place in the plan for the development of the food complex of Tomskaya Oblast is occupied by questions of improving the production of grain, meat and milk, strengthening the feed base for animal husbandry, and utilizing other local food resources. Under the Eleventh Five-Year Plan Tomskaya workers intend to increase the production of meat by 35 percent, milk--by 12 percent and eggs--by 30 percent. Much is being done to strengthen the branch's material and technical base. An agro-industrial strip of complexes for producing milk, poultry meat and pork, eggs and vegetables is being created near the oblast center. It must be said that capital investments have been handled skillfully here, concentrating forces and funds



on the decisive facilities, and their striving to assimilate the created capacities more rapidly. Thus the construction of the last section of the broiler poultry farm has still not been completed, but its shops have produced more than 9,500 tons of dietetic meat. The number of animals in the new hog complexes is increasing and it has also begun to produce products.

The level of mechanization of the farms rises from year to year. Now two-thirds of the cows and hogs and almost all of the poultry are kept in comprehensively mechanized facilities. The construction of housing and facilities for social and cultural purposes has increased in rural areas. All this has made it possible to reduce labor turnover and attract youth for work on the fields and farms. The kolkhozes and sovkhozes attach primary significance to feed production. They have carefully accounted for all of the feed land and thought out all of the details of the organization of procurements of hay, silage and other feeds. Staffs headed by the first secretaries of the obkom, raykoms and gorkoms of the CPSU are being created in the oblast, rayons and cities. On many sovkhozes and kolkhozes the work of procuring haylage and mowing grasses is done on two shifts, and the majority of sets of equipment for producing grass meal operate 24 hours a day. The watch method of utilized extensively. Thus they manage to remove the feed from places that are difficult to get to and otherwise unsuitable land.

The oblast has formed a system of organizational and mass political work in the collectives of animal husbandry workers, especially during the winter period. During this difficult time almost 1,500 machine operators have been sent to the farms, and every fifth one of them is a communist. In order to exchange advanced experience each month mutual inspections are conducted for the competing farms, sovkhozes and kolkhozes, and these are conducted once a quarter for the rayons. The results of the mutual inspections are considered in the party and trade union committees, and concrete measures are taken regarding them.

Each week Tuesday is the "day of the animal husbandry worker," when management personnel of the CPSU raykoms and rayispolkoms, and farm managers and specialists come to the farms. Usually on these days they sum up the results of the past week, solve the problems of the forthcoming period and consider questions of the efficiency of the utilization of feeds, maintenance of product quality and the condition of labor discipline. "Days of the animal husbandry worker" have essentially become one of the forms of administration of the animal husbandry farms and education and organization of the people.

Table. Production and Sale of Meat to the State by the Kolkhozes and Sovkhozes of Tomskaya Oblast (tons)

1976	36,909	33,844
1980	43,743	37,982
1981	48,758	42,742

The plan for political and educational work with animal husbandry workers, which is approved by the bureau of the party obkom, has a place for workers of culture,

art, medicine and trade as well. Thus theaters, philharmonic orchestras, writers and artists have created 10 mobile groups for performing for farm workers, the collectives for independent artistic work of the industrial enterprises have created 50 agitation brigades, and the libraries have created 220 points for distributing books.

Instead of recreation rooms, the farms have created centers for social and political work. Of course, it is not a matter of changing names, but the fact that these centers have become a new form of mass political work with broader functions. The necessary premises have been allotted and they are better equipped than they previously were. They have furniture, equipment for showing films and, frequently, television sets. Certain farms have constructed buildings for the animal husbandry worker where, in addition to these centers for social and political work, there is a dining room and offices for specialists. Combined political days are held each month for animal husbandry workers and these are attended by managers not only of the rayon level, but also of oblast agencies.

The increased attention to the affairs and concerns of farm workers is not without results. It undoubtedly contributed to the fact that last year the oblast fulfilled the plans for procurements of animal husbandry products ahead of schedule. Animal husbandry workers have begun the second year of the five-year plan successfully.

## 2. Watches for Feed Procurement

A special-purpose program entitled "Feed" has been earmarked for the Eleventh Five-Year Plan. Its implementation will make it possible to obtain more than 30 percent of all the feeds procured in the oblast from reclaimed land. The watch method will be developed more extensively.

The agricultural land of Tomskaya Oblast is located in the taiga zone. The forested soil with poor fertility, the short period without freezing, the frequent droughts and the bad weather in the autumn create many difficulties for the field workers. And despite the fact that the productivity of the fields is increasing steadily, one cannot count on providing the animal husbandry workers with a great deal of grain forage. At the same time the oblast has extensive lowland meadows. With good agrotechnology the plowed land produces fairly good yields of silage and other feed crops. Therefore we rely mainly on the development of the production of coarse and juicy feeds that are varied and of high quality. Feed production has become a specialized branch. Special subdivisions are being created on the farms and they have feed crop rotations and technical equipment assigned to them. A great deal of attention is being devoted to the production of forage crops and the areas planted in pulse crops--peas, clover, alfalfa and rape--and also feed root crops are expanding.

Reclaimed land is becoming a good basis for guaranteed feed production. There are 33,000 hectares of it in the oblast, including 9,500 hectares of irrigated land and 22,000 hectares of drained land. The yields obtained from them are still below the planned level, but the work that is being done now for efficient utilization of them will make it possible to obtain a full yield of feed crops from them in the next few years. But that is tomorrow. What about today?

Today a practically inexhaustible source and reserve for procuring feeds is the Ob's floodland. In recent years more and more feeds have been procured by the watch method from remote floodland meadows. During the summer harvest dozens of comprehensively mechanized brigades and detachments from Tomsk and other cities and villages go 100 kilometers along the Ob to the north. Mobile watch villages with the necessary conditions for labor and recreation appear on the places with the richest grasses.

In this connection, support should be given to the remarkable initiative of the Tomsk workers who three years ago were the first in the country to create a floating plant for producing granulated grass meal. Now there are two of these plants. They operate in the recently created Poymennyy Sovkhoz--the first specialized farm for the assimilation of meadows flooded by the great Siberian River.

There is nothing unusual in the plant's design or equipment. On a barge that was written off by the river fleet are installed a "land" AVM, granulators an automatic power installation, and an 11-meter bridge for transporting the green mass from the shore. When floating down the river on the deck is a set of shore technical equipment for mowing and transporting the grass. The complex also includes a tow launch, a tank barge with fuels and lubricants, a guard boat with comfortable cabins, a dining room, and a center for social and political work. In a word it is an autonomous floating watch village whose collective is capable of working 24 hours a day in any floodland that is difficult of access. The watch changes once a month.

During last season both plants produced 3,100 tons of granulated vitamin grass meal. The production cost was less than that of grass meal produced from arable land. Taking these conditions into account, the return from the floating complexes is high. With a cost of 700,000 rubles, each of them produces an annual economic effect of more than 600,000 rubles. A plan for a series produced floating plant is being created, and the experimental model will soon be launched in the Tomsk building slips.

In the past two years the volumes of procurements of coarse and juicy feeds in the oblast have increased by 15 percent and more. Their quality has also improved, primarily as a result of reduced time periods for harvesting grasses. The construction of faced trenches has also had an effect on the quality of juicy feeds. Now, according to data of the oblast agricultural administration, more than half of the silage and haylage is being placed in these storage places, and under the current five-year plan they will be able to handle the entire volume of procurements of these feeds.

During the past two years the farms have extensively introduced the green conveyor during the summer and autumn period of maintaining livestock. The first secretary of the Tomskiy CPSU raykom, A. Gabrusenko, recalls: "Previously, in terms of summer milkings, we were always behind the Novosibirskiy and Kemerovskiy workers, who organized the feeding of animals well in summer camps. The study and application of the experience of our neighbors made it possible to develop a green conveyor technology on each farm."

Table. Production and Sale of Milk to the State by the Kolkhozes and Sovkhozes of Tomskaya Oblast. (tons)

1976	193,840	166,231
1980	210,172	182,726
1981	217,635	189,570

Correct preparation of feeds for distribution is very important in their efficient utilization. To accomplish this, Tomskaya animal husbandry workers are utilizing feed shops of their own design with dry processing of feeds which is optimal for Siberia. Now they have been created on more than half of the farms. Last year alone 55 of these feed shops were constructed. They are inexpensive and convenient to use.

### 3. According to the Principle of the Brigade Contract

Autonomously financed mechanized complexes and detachments have become the most effective for procurements of feeds. Last year 147 of these subdivisions worked on hay procurement in the oblast. They accounted for 52 percent of the hay procured on the farms. There were 154 mechanized detachments engaged in storing up silage and producing grass meal. They procured 69 percent of these feeds.

The work of the feed procurement subdivisions on the farms of the oblast is organized according to the principle of the brigade contract. The kolkhoz or sovkhov administration concludes an agreement with each mechanized complex or detachment. It determines the seasonal assignment for the collectives of the feed procurement subdivision and the time periods for the performance of the work, taking into account the availability of the appropriate technical equipment, the peculiarities of the area and the conditions for the payment for labor.

In keeping with recommendations from the agricultural production administration of the oblispolkom, the labor of those who are employed in procuring feeds is paid for at piece rate amounts--per ton of procured hay, silage, haylage and other feeds.

To determine the piece rate cost per ton of one feed or another one takes 100 percent of the wage tariff fund, calculated from the planned volume of work for procuring feeds, and also the sum of additional payments for quality and for the time periods for carrying out the assignment.

The piece rate prices per ton of procured feed are increased if a certain seasonal norm is met. If, say, the machine operator has overfulfilled the seasonal norm by 25-40 percent, the price per ton of procured feed is increased by 15 percent, if he overfulfills the norm by 40-60 percent it is increased by 30 percent, and if the assignment is overfulfilled by more than 60 percent, the price is increased by the same amount. Piece-rate prices are increased by considerably larger amounts if the feed that is procured is of the first or second class.

Accounts with autonomously financed feed procurement subdivisions are settled after the delivery and sale of the feeds, when there is a document concerning the results of the determination of their quality, that is, for the final results. And during the process of work wages are calculated for the amount of time worked according to piece rate schedules.

In order to motivate the collectives of feed procurement subdivisions to reduce expenditures on procured feeds, there are bonuses for economizing on funds.

Additionally, it is recommended to the managers of farms that they allot up to 10 percent of the procured hay and silage and up to 20 percent of the straw to workers who participate actively in the procurement of feeds and have their own private livestock, and that this be sold at the planned cost price.

The winter period creates certain difficulties for animal husbandry workers of the oblast. But they are persistently surmounting them. In the majority of regions in two months of 1982 they have procured more meat and milk than during the corresponding period of last year. But there are also rayons that have indicators that are lower than last year's level. The workers of the kolkhozes and sovkhoses are doing everything to fulfill the assignments of the current year and the five-year plan as a whole.

#### Oblast Party Official Interviewed

Moscow NEDELYA in Russian No 12, Mar 82 p 2

[Interview with A. Zarembo, secretary of the Tomskaya CPSU Obkom by L. Levitskiy (Tomsk)]

[Text] [question] Today in front of the Tomsk department store I saw several Zhi-guli with license plates from the neighboring oblast. Their owners were carefully packing in boxes of eggs and chickens. But not very long ago it was fairly difficult to buy them in Tomsk. Now there are always eggs and poultry meat in the stores. The same thing with vegetables and milk. What is the secret of the changes that have been made?

[Answer] The store counter is the mirror of production. We have obviously learned to raise and produce and so there is something to sell. We have calculated that last year we harvested twice as many vegetables as five years ago, three times as much poultry meat and 100 million more eggs. This is what the Tenth Five-Year Plan was like for us. We augmented the public herd and the milk yield increased. We are even looking for consumers of vegetables and potatoes in other regions, we are looking for buyers for our products . . . .

[Question] Of course this doesn't happen in real life: all of a sudden a "mountain" of cabbages appears before you . . . . Therefore the question: how did this mountain appear?

[Answer] How? . . . Rapid industrial development of the oblast and the appearance of new areas for us such as petroleum extraction and petrochemistry also required accelerated strengthening of agriculture, whose purpose is to fully satisfy the

region's demands for the basic food products. I wish to draw attention to the word "fully." It is precisely here that we have the main difficulties in solving this important problem. Well, and how do we cope with it; the ways of solving it are generally known: specialization, concentration and changing agricultural production over to industrial technology. We have relied on these three supports. We created the Tomich vegetable raising firm and the Ptitseprom trust. We have sharply increased land reclamation work. While previously all of seven rayons engaged in raising vegetables (whether for better or worse), now practically only one does--Tomskiy. The irrigated land guarantees reliable yields. Even last year's unprecedented drought did not put us off balance: each hectare produced 208 quintals of vegetables--50 percent more than in 1980.

The Siberian summer is extremely short--it freezes as early as August. Only one out of every 7-8 years is favorable, when the cucumbers ripen "by themselves" in the fields. There is no point in even speaking about tomatoes. Moreover, the vitamin [sic] season is extremely short: August-September. Two months of mass harvests and only during these two months does one have inexpensive vegetables. So the volume, the size of the harvest is still not an indicator of the population's supply of, say, cucumbers. It is another matter when they remain in the stores from March through October. Then the Tomsk residents can buy at the state price red tomatoes that have been raised right in the oblast . . . .

[Question] Then this question: how did you manage to push back the boundaries of the summer, to prolong it?

[Answer] The summer, you understand, is the same as it was, but something has appeared in vegetable raising that has made it independent of the weather, placed it outside good or bad weather conditions. This "something" is a reliable industrial basis for farming, in the first place, and hothouses, in the second. You would apparently be interested in knowing that the Kuzelevskiy combine near Tomsk completed its planting several days ago. It was the first in the oblast. The plantings of cucumbers and tomatoes have grown green on 24 hectares. The stores are selling green onions and in the entryway there are dill, radishes, lettuce and other greens. And first "Siberian" cucumbers have also appeared. In March the store will receive almost 600 tons of them! This is quite enough for Tomsk. By the end of the year the Kuzelevskiy combine will have 30 hectares of winter greenhouses--no other Siberian city has such a "garden under glass." To that we must add the 4 hectares of greenhouses on the Tomich Sovkhoz. Taking the plastic hothouses into account, there is about a square meter of covered ground for each Tomsk citizen today. That is, we have practically reached the scientifically substantiated norm that guarantees the city's residents 20-22 kilograms of vitamin products a year. Now, perhaps, we can allow ourselves to allot 3 hectares of hothouses for flowers. We have already reequipped the Tabak store to sell them.

[Question] Time is flying rapidly. Some newspapers announced that a large agrarian belt was being created around the city and that it would include the largest hothouse combine in Siberia, a broiler farm for 6 million, and a hog complex for 108,000 head. And all this is essentially already in operation and producing products. Answer this question: where did the oblast get so much money for construction and how have the Tomsk workers managed to "push up" the normative construction time?"

[Answer] Now I shall answer both of your questions. But first I should like to convey the great gratitude of Tomsk citizens to the party central committee and the country's council of ministers who supported our initiative to create a large agricultural belt around Tomsk. Our agrarian complex has appeared on the list of the new construction projects of the five-year plan and the suppliers of equipment have been earmarked. We, in turn, have resolved to concentrate about one-third of all the capital investments the oblast receives for agricultural purposes in the construction and equipping of the hothouse combine, the broiler farm and the hog raising complex. Of course this has caused some harm to other businesses. But if all of them received money immediately this would be a dispersion of funds. And this is to everybody's harm. And since we have large volumes of work we especially created new contracting construction organizations. There is a staff which joins the efforts of planners, clients, builders and city enterprises. Hence the high rates of work. Last year 22.5 million rubles were assimilated at the main agricultural facilities, and this included 3.2 million rubles in excess of the plan. The Tomsk citizens' contribution now amounts to almost 1.5 million rubles. Our stores also became good "agitators"--the city sees that there are more and more vegetables, eggs and chickens in them . . . .

Life has confirmed the correctness of the decision to concentrate efforts and funds. About 115 million rubles have already been invested in agricultural complexes and, although their construction will not be completed until this year, the Tomsk residents, as I said, have already experienced their possibilities. A good deal of money was spent, of course, but having successfully selected the sites for the complexes and improved many planning decisions, we, in turn, have saved millions of rubles and reduced future expenditures.

[Question] Could you not explain what it means when you say: "having improved planning decisions"?

[Answer] The northeastern outskirt of Tomsk is a developed industrial zone. Several plants are concentrated here and an immense petrochemical complex is being constructed. We are building excellent roads, pipelines and power transmission lines here. It is precisely here that we have decided to construct both the greenhouse combine and the broiler farm. Why here? Because here there is no need for additional sources of heat--the plants warm up all the hot water they use and then discard. And a boiler for a 30-hectare garden under glass would cost 27 million rubles and would require 500,000 tons of coal a year. The petrochemical combine has given water to the hothouses of the broiler farm and it takes all the waste water into its purification installations. In essence this cooperation has saved as much money as would have been spent on the construction of the Kuzelevskiy hothouse combine.

I shall give another example. According to the plan, the poultry farm was to have consisted of many single-story "boxes"--pavillions for broilers. Our specialists proved that it is more advantageous to construct a multistory building. In this design the "brick pavillions" stood on top of one another. The size of the construction site, the volumes of building up, and the engineering networks immediately decreased several fold. It became possible to increase the capacity of the farm from 6 to 9 million broilers a year without large investments.



[Question] This question: hothouse workers, poultry raisers, hog raisers who know industrial technology--where did you find them?

[Answer] Personnel, this is really the problem. Finding workers and training them is far from all there is to it. It is difficult to place and retain workers. In order to do this it is first of all necessary to create good housing and living conditions. We are striving toward this. We are erecting a single village of an urban type with all of the conveniences for all three "food enterprises." There are now about 2,000 people living in Svetlyy, as it is called. A children's combine to accomodate 280 is being put into operation. On 1 September 1,200 pupils who are children of workers at the agricultural complex will enter a new school. We have begun construction on a trade center and other domestic facilities. We think that in time Svetlyy will become of the best villages of the oblast.

[Question] Siberian peasants say that the largest harvest is only a half harvest if there is no cellar. Vegetable production has doubled but if there is no base to store them or process them, then what?

[Answer] This is a difficult point because the base is inadequate so far. Under the Eleventh Five-Year Plan it is intended to construct in Tomsk a storehouse capable of receiving 15,000 tons of vegetables and storing approximately as much as are produced in the vegetable production zone. The new Chernorechenskiy Sovkhoz will have a shop with a capacity of 3 million conventional canned goods a year. The Tomich vegetable firm and the Gorplodovoshchtorg trust have been reorganized and strengthened, which will bring the "field" closer to the "store." There is now only one master of perishable products.

[Question] Large complexes have been constructed. But what next? Has the "agrarian belt" around Tomsk been completed?

[Answer] The plenum of the party obkom has approved a program for the development of the oblast's food complex. All forces and funds and all attention are now going to animal husbandry. During the five-year plan milk production will increase by 25-30 percent. It is necessary to construct 29 complexes for 26,000 head of live-stock. This can be done on schedule only with the active assistance of city collectives and the participation of the citizens. We have experience in industrial dairy farming.

The city is building up the village and the village is feeding the city--this is precisely the principle we adhere to. And this is the only way that it is possible to increase the production of food products and fully provide ourselves with them without waiting for government subsidies.

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WAYS TO STRENGTHEN COST ACCOUNTING IN AGRICULTURE DISCUSSED

Moscow EKONOMIKA SEL'SKOGO KHOZYAYSTVA in Russian No 3, Mar 82 pp 74-81

/Article by Aleksandr Nikolayevich Masyuk, doctor of economic sciences, director of division of the All-Union Scientific Research Institute of Economics of Agriculture: "Strengthening of Cost Accounting in Agricultural Production"

/Text The theoretical principles of cost accounting under socialism were developed by V. I. Lenin. They were embodied in the concrete methods and rules of socialist management. In the USSR Constitution cost accounting is mentioned among the most important economic levers and incentives of developed socialism.

The decisions of the March (1965) Plenum of the CPSU Central Committee played an important role in the strengthening of cost accounting. During the past period fundamental changes took place in the productive forces of agriculture, production relations were improved and the specialization and concentration of agricultural production based on interfarm cooperation and agroindustrial integration were developed further.

Modern agriculture is connected with the sectors of the agroindustrial complex to a greater extent than before. Comrade L. I. Brezhnev stressed the following at the July (1978) Plenum of the CPSU Central Committee: "We strive for a situation where the entire diversity of economic relations within farms and on the scale of the entire agroindustrial complex creates a community and unity of interests of the state, kolkhozes and direct producers of products. In a correct combination of the interests of all the parties participating in the production and sale of products V. I. Lenin saw one of the main principles of socialist management."

At the 26th party congress and the November (1981) Plenum of the CPSU Central Committee special attention was paid to the need to improve the economic mechanism and the system of management in the agroindustrial complex. Comrade L. I. Brezhnev's speech at the November (1981) Plenum of the CPSU Central Committee pointed out the following: "It is necessary to create conditions that would more actively stimulate the growth and increase in the intensity of agricultural production, encourage the initiative of kolkhozes, sovkhoses and all the links of the agroindustrial complex and make them work not for intermediary indicators, but for a high end result." In the solution of these problems great importance is attached to the strengthening of cost accounting.

The cost accounting method is based on certain principles. They include the following: combination of centralized planned management with the operative-economic independence and initiative of enterprises and associations; observance of the policy of economy; thrift; prohibition of mismanagement and waste; recovery and profitability of production ensuring the coverage of expenditures on expanded reproduction and material incentives from the internal funds of enterprises and associations; material and moral interest of workers in the growth of production and increase in its efficiency; economic responsibility of enterprises and associations for the results of their activity; strictest accounting and ruble control in all the links of production, exchange, distribution and consumption based on the commensuration of expenditures and results.

These principles are common for all the spheres of public production. The methodological principles of construction of the cost accounting mechanism are common for all enterprises and associations. However, there are also characteristics of use of cost accounting in various national economic sectors.

The characteristics of cost accounting in agriculture are manifested primarily in the mutual relations of the state with kolkhozes. Kolkhozes carry out their activity in accordance with the principles of full cost accounting. The economic relations of the state with kolkhozes are mediated by the presentation of a number of indicators of agricultural development to them, planned price formation for agricultural products, income tax payments by kolkhozes, deductions of kolkhozes into the centralized Union fund for social security for kolkhoz members and into the centralized Union fund for social insurance for kolkhoz members and payments for mandatory state insurance of kolkhoz property.

A number of expenditures on a fundamental improvement of kolkhoz land are financed from the funds of the state budget. In particular, these are expenditures on the extraction, transportation and use of peat for fertilizers, veterinary-sanitary measures, stubbing of forests and shrubs and other amelioration operations (clearing land of forests, shrubs, stumps and stones, leveling areas after stubbing, cutting and laying out grass hillocks, rototilling and plowing virgin and long-fallow land with brush and marsh plows and other machines and so forth). All the enumerated expenditures fully or partially financed from budget funds are not connected with the establishment of structures and other inventory projects. Part of the expenditures on soil liming and gypsuming are also financed from budget funds.

Furthermore, the shortage of capital in the centralized Union fund for social security for kolkhoz members is compensated for from the funds of the state budget. In accordance with the statutes in effect kolkhoz members receive pensions from the capital of the centralized Union fund for social security for kolkhoz members and temporary disability allowances, from the capital of the centralized Union fund for social insurance for kolkhoz members.

Material incentives for labor have been increased on kolkhozes. At present the wages of kolkhoz members are guaranteed. Guaranteed wages for kolkhoz members (in money and kind) are established on the basis of the wage rates of the corresponding categories of sovkhos workers. Output norms are approved on kolkhozes with due regard for specific conditions as applied to the output norms established for similar work on sovkhos. An additional payment and bonuses from the material incentive fund can be given for an increase in the production, improvement in the quality and reduction in the cost of products. The state grants short- and long-term credit to kolkhozes.

Thus, the economic relations of the state with kolkhozes cover all the aspects of financial production activity for the purpose of ensuring a normal functioning of production and a solution of social problems. In accordance with the Model Charter kolkhozes have the right for independent economic management on the basis of democratic forms of administration. The centralized management of kolkhozes is based on a wide use of economic methods, levers and incentives combining the interests of the state, kolkhozes and kolkhoz members.

The economic relations of the state with sovkhozes and other state agricultural enterprises differ. At present all sovkhozes operate under the conditions of full cost accounting. The legislation in effect regulates many aspects of their activity as state socialist enterprises.

A large range of indicators of the plans for the economic and social development of the USSR are assigned to sovkhozes. The products produced on sovkhozes are the property of the state and are sold by sovkhozes in strict accordance with the established procedure. Wages and material incentives for sovkhoz workers are paid in accordance with the approved statutes. The wage fund is also approved for sovkhozes.

In contrast to kolkhozes sovkhozes make contributions to the budget in the form of payments for fixed productive capital for agricultural purposes (with a profitability of 25 percent and more). Allocations from the budget cover the financing on sovkhozes of part of the capital investments, measures for land improvement, control of epizootics of farm animals, land management, protection of agricultural plants from pests and diseases and full or partial soil liming and gypsuming, part of the expenditures connected with the maintenance of housing and municipal services and other expenditures envisaged by legislation. Budget financing with respect to sovkhozes with a different economic level is nonunique. Capital investments for the construction of projects for nonproduction purposes on all sovkhozes are financed from the capital of economic incentive funds, from the savings from construction and installation work carried out by the economic method, from the mobilization of internal reserves and from budget allocations.

Capital investments for production purposes are financed from internal sources and credits. On sovkhozes included in the list of low-profitability and unprofitable sovkhozes by councils of ministers of the Union republics they are financed from internal funds and allocations from the state budget. Furthermore, budget appropriations are allocated for the financing of the construction of animal husbandry complexes (except for expenditures on the construction of poultry farms, hog breeding complexes and complexes for the fattening of large-horned cattle, which will be provided with concentrated feed from state resources), hotbed and hothouse combines, complexes for the production of fish products (valued at 1 million rubles and more) and reclamation and irrigation systems in amounts covering the shortage of internal funds.

Planning occupies a central place in the cost accounting mechanism. For the purpose of ensuring a balance of the assignments for the sale of farm and livestock products to the state with existing productive capital and allocated material-technical and financial resources, the decree dated 14 November 1980 of the CPSU Central Committee and the USSR Council of Ministers "On Improving the Planning and Economic Stimulation of the Production and Procurements of Agricultural Products" establishes that councils of ministers of the Union republics and of USSR

ministries and departments ensure the presentation of a number of indicators of agricultural development to kolkhozes, sovkhozes and other agricultural enterprises and associations respectively in five-year (with an annual breakdown) and annual plans. These indicators include the following:

unified plans for the sale of agricultural products in physical terms envisaged in state plans for the economic and social development of the USSR and the Union republics to the state and on specialized farms, in addition to this, volumes of sale of the products in whose production these farms specialize (young pedigree stock, high-grade seeds, planting stock and other products);

the volume of delivery of tractors, motor vehicles, tractor trailers, grain harvesting combines, other basic agricultural machines, fertilizers and chemical plant protection agents and for poultry farms, animal husbandry complexes and pedigree farms the volume of delivery of mixed feed as well. In addition to this, the volume of delivery of construction materials for the performance of construction and installation work by the economic method and for repair and maintenance needs, as well as of petroleum products and other material and technical facilities necessary for the fulfillment of plans, is established in annual plans;

assignments for the introduction of scientific and technical achievements secured with the necessary material and technical resources;

for sovkhozes and other state agricultural enterprises and associations, the wage fund (standard);

for sovkhozes and other state agricultural enterprises and associations, the profit plan, payments to the state budget and allocations from the state budget;

Indicators for the commissioning of fixed capital (with an allocation of capital for production purposes) and of the most important production capacities and projects for nonproduction purposes according to the list of the state plan for the economic and social development of the USSR, including increase in production capacities as a result of the technical retooling and reconstruction of existing capacities, are presented to sovkhozes and other state agricultural enterprises and associations. The limits of state capital investments and of construction-installation and contract work on the development of agriculture for the entire set of operations (with an allocation of limits for projects for production purposes), including expenditures on the technical retooling and reconstruction of existing enterprises (in the five-year plan), are also presented to sovkhozes and other state agricultural enterprises and associations.

The same indicators secured with material and technical resources and envisaged by calculations for the plans for economic and social development are reported to kolkhozes.

A procedure, in accordance with which plans for capital investments, limits of contract work, plans for material and technical supply and financial-economic indicators are presented to farms simultaneously with plans for the sale of agricultural products to the state, has been established.

Assignments not envisaged in state plans for the economic and social development of the USSR and the Union republics should not be pretended to kolkhozes, sovkhoses and other state agricultural enterprises. The practice of presentation of such assignments to farms is considered incorrect. The volumes of production of agricultural products, size and structure of sown areas, livestock population, yield of agricultural crops, productivity of animals, technology and organization of production and other indicators of agricultural development are determined in five-year and annual plans developed on farms with a wide enlistment of specialists, kolkhoz members and workers, as well as public organizations. These indicators are worked out with due regard for local conditions, advanced experience and recommendations of scientific research institutions on the basis of the need to ensure an unconditional fulfillment of the established plans for state purchases of agricultural products and to meet intrafarm needs for them. A strict observance of these provisions is an important factor in the strengthening of cost accounting.

Cost accounting as a method of socialist management based on state planning is inconceivable without enterprise, initiative and responsibility. If the rights of kolkhozes and sovkhoses in economic management are infringed upon, a decline in the business activity, initiative and responsibility of managers, specialists and labor collectives is an inevitable result. Many shortcomings in cost accounting are due to the underestimate of this principle.

In the past the effectiveness of cost accounting on kolkhozes and sovkhoses was manifested insufficiently owing to the shortcomings in planning organization. Only plans for the sale of agricultural products to the state for the years of the five-year plan were presented to kolkhozes and sovkhoses. This greatly hampered the development of plans for the economic and social development of kolkhozes and sovkhoses for the five-year plan as a whole and for the years of the five-year plan and the attainment of a balance of plans in terms of volumes of production, material and technical resources and capital investments. Nor did such a situation create sufficiently good conditions for the realization of the principles of cost accounting.

In contrast to past years a unified plan for the sale of agricultural products, that is, without a division of the plan into a firm plan and an assignment, is now presented to agricultural enterprises. The new approaches to planning organization are important factors in an improvement in the pivotal link of the economic mechanism--combination of centralized planning with the cost accounting principles of the work of kolkhozes and sovkhoses. The responsibility for the fulfillment of the five-year plan for the economic and social development of agriculture of kolkhozes and sovkhoses, as well as of the enterprises and organizations of other sectors of the agroindustrial complex, increases.

Cost accounting is based on a monetary commensuration of the expenditures on and results of production for the purpose of attaining an efficient utilization of material, financial and labor resources. An increase in economic responsibility for economic management and the end results of enterprise work is important in its realization. It is expressed in the fact that from internal funds it is necessary to compensate for current expenditures on production, to make payments to the budget, to finance capital investments, the increase in the standard of internal circulating capital and the formation of the basic herd of animals, to return State Bank credit, to create economic incentive funds, to make payments to centralized funds, to provide incentives for workers and so forth. The disposable balance of profit and surplus of internal circulating capital are withdrawn on sovkhoses.

The economic responsibility of enterprises for the results of their work is also mediated by the mechanism of profit distribution and by the methods of material incentives for labor. When profit is distributed on sovkhozes, capital is deducted into the material incentive fund, the fund for social-cultural measures and housing construction, the fund for the strengthening and expansion of the economy and the reserve fund. Funds for economic incentives and special purposes--the indivisible fund, the fund for cultural-domestic measures, the fund for social security and financial assistance to kolkhoz members, the funds for material incentives for kolkhoz members and specialists and the reserve fund--are established on kolkhozes.

The procedure and norms of profit deductions into the economic incentive funds of sovkhozes are established by the state. The general procedure of distribution of net income and formation of funds on kolkhozes is determined by the Model Kolkhoz Charter and the standards of deductions are established by the kolkhozes themselves (except for deductions into centralized funds).

On sovkhozes profit deductions into the material incentive fund are made according to stable standards in percentage per percent of increase in the volume of gross agricultural output as compared with the average annual level attained during the preceding 5 years, as well as according to the standard for the derivation of profit. Therefore, incentives are directly connected with the growth of production and its efficiency. On low-profitability and unprofitable sovkhozes (according to the list approved by councils of ministers of the Union republics) the material incentive fund is formed through deductions according to stable standards per percent of increase in the volume of gross agricultural output as compared with the average annual level attained during the preceding 5 years--up to 0.3 percent of the amount of the annual planned wage fund, as well as for a reduction in the loss as compared to the average annual level during the preceding 5 years at the rate of 15 percent of the total amount of loss reduction. When profit is obtained, additional deductions into the fund are made according to the established standard. On sovkhozes 10 percent of the distributed profit is assigned to the fund for social and cultural measures and housing construction and 10 percent, to the fund for the strengthening and expansion of the economy. A total of 20 percent of the distributed profit (up to 30 percent in the RSFSR and the Kazakh SSR) is assigned to the reserve fund.

Improvement in cost accounting relations in unprofitable enterprises is hampered for a number of well known reasons. However, unprofitability and low profitability cannot serve as the basis for disparaging the role of cost accounting principles and belittling the importance of cost accounting relations. Regardless of profitability the policy of economy can and should be observed, incentives can and should be provided for people ensuring the saving of material and monetary resources and wages can and should be closely connected with the end results of labor.

The present level of management of agricultural production is objectively determined by an increase in collective responsibility for production results and by the responsibility of every worker for the job entrusted to him. In the final analysis the system of cost accounting relations should be organically introduced into the activity of every enterprise worker without exception. Without this the principles of cost accounting become formal and ineffective. It is necessary to



proceed from the fact that the end result of production is formed at every work place regardless of its significance. The collective as a whole and every worker separately are the creators of the result. Therefore, labor collectives and every member of a collective should be primarily the objects of cost accounting relations.

The nature of cost accounting relations of developed socialism determines the need for the development of stepped-up, but realistic, production assignments for kolkhoz and sovkhoz subdivisions and a mandatory participation of labor collectives in their development. An unrealistic plan in itself is an anomaly in cost accounting relations. Substantiated planned assignments can be developed only on the basis of application of progressive norms. Such norms make it possible to balance the planned assignment and thereby to create the necessary prerequisites for its fulfillment. This in turn makes the responsibility for plan fulfillment objective and creates confidence among labor collectives in the reality of material incentives. The unfailing observance of the planned measures incorporated in the production assignment is no less important an aspect of cost accounting relations. Their fulfillment depends not only on labor collectives. In practice, production assignments for subdivisions often lose their practical significance owing to the breach of obligations adopted in them on the part of the sovkhoz management and kolkhoz board. This is the reason for the disruption of cost accounting relations and decline in the activity and interest of labor collectives and in the effectiveness of socialist competition.

An evaluation of the results of work of labor collectives holds a special place in the system of cost accounting relations. Moral and material incentives are connected with it. The fact that these results do not always depend only on the work of kolkhoz members, sovkhoz workers and specialists is the characteristic of agriculture. For this reason an objective evaluation of results is the most important factor in the improvement in cost accounting relations and in the strengthening of cost accounting. Therefore, methods of material and moral incentives for labor collectives should contain provisions taking these characteristics into consideration. It is no secret that under difficult weather conditions there are great difficulties with the fulfillment of planned assignments. For objective reasons the plan may be not fulfilled. However, the obtained result often is attained with greater efforts than plan overfulfillment under good weather conditions.

The criteria of evaluation of the results of work of labor collectives should not be based on a formal approach. It is important to take into consideration not only the result as such, despite all its significance, but to objectively evaluate the attitude toward the matter, the effort and the degree of utilization of realistic possibilities for the purpose of improving the result. If the labor collective did everything that was possible, the results of its work should be evaluated accordingly.

In the strengthening of cost accounting on the basis of five-year plans and long-term economic standards special attention should be given to an increase in the capital-output ratio and a decrease in production costs. Attention to the problem of reduction of production costs on kolkhozes and sovkhozes has been slightly weakened in the last few years. It is necessary to intensify the role of this indicator in the evaluation of the activity and stimulation of collectives of enterprises, associations and sovkhoz trusts. A rise in the profitability and elimination of the unprofitability of production, increase in profit, primarily as a result of a decrease in production costs, labor productivity growth and improvement in the quality of agricultural products are important tasks.

The development and strengthening of cost accounting on kolkhozes and sovkhozes is inseparably connected with an improvement in the material incentive system with due regard for the specific contribution of every labor collective and individual worker to the results attained. Positive experience has been accumulated in this area. It should be more rapidly and energetically introduced into the practice of agricultural production.

The 26th CPSU Congress orients us to the development of effective forms of incentives for collectives for the fulfillment and overfulfillment of planned assignments with a smaller number of workers and employees, utilizing the saving of the wage fund for the stimulation of labor productivity growth and improvement of the quality of work.

In the improvement of cost accounting relations it is possible to single out three basic aspects: improvement of economic relations of the state with agricultural enterprises and associations; improvement of economic mutual relations in the agroindustrial complex; improvement of cost accounting relations within enterprises and associations. All of them are of equally great importance. It is also important that the principles of cost accounting form the basis for the activity of economic management bodies and that material incentives for the workers of these bodies are directly connected with the results of work of the managed projects. The application of the principles of cost accounting in economic management bodies has its characteristics. We would like to note here that the shortcomings in the economic mechanism of management often are the reason for an expansion of the size of the managerial staff and predominance of administrative methods of management. Conversely, cost accounting relations should stimulate a reduction of the managerial staff.

The policy of the maximum intensification and increase in the efficiency and quality of work in all economic links developed by the party is directed toward the following: Production results should grow more rapidly than the expenditures on production and more should be attained with smaller resources. This is precisely the aim of the decree of the CPSU Central Committee and the USSR Council of Ministers "On the Intensification of Work on the Saving and Rational Utilization of Raw Material, Fuel-Power and Other Material Resources." This dictates the involvement of the collectives of every kolkhoz, sovkhoz, interfarm enterprise and production association in the fight for the observance of the policy of economy, reduction in the expenditures of raw materials, supplies, fuel and power, liquidation of losses, fostering of a thoughtful attitude toward national property, resolute elimination of nonproductive expenditures and all-possible losses and excesses and creation of an atmosphere of intolerance of any cases of waste.

In agriculture the urgency of the problem of an economical expenditure of resources is very great. It is determined primarily by the characteristics of the sector itself.

The implementation of measures for the regulation of the utilization of material resources has acquired extremely great importance on kolkhozes and sovkhozes. On some farms great overexpenditures of feed, spare parts, repair materials, fuel and electric power are allowed and fertilizers, machinery, equipment, buildings and installations are not used efficiently. The existing norms of expenditure often do not reflect realistic conditions and do not correspond to production technology. They do not always mobilize workers for an economical and rational utilization of resources.



Expenditure norms greatly depend on the quality of output. This applies to feed, seeds, fertilizers and many other types of resources. Therefore, an improvement in the quality of material resources of internal production and those that are consumed in agriculture itself is the most important task in the matter of observance of the policy of economy and an efficient utilization of resources. Consequently, it is advisable to organically connect improved progressive norms of expenditures of material resources with their quality.

Good experience in the introduction of cost accounting has been accumulated on many farms in the country; for example, in the Estonian SSR and the Lithuanian SSR. Profitability, labor productivity and the level of development of production as a whole are much higher on the kolkhozes and sovkhozes of these republics. Much attention is paid here to the development of cost accounting relations in the agro-industrial complex. The practical experience of the Talsinskiy, Vil'yandiskiy and Pyarnuskiy Rayon Agroindustrial Associations is widely known in the country.

In the Lithuanian SSR great importance is attached to the differentiation of purchase prices. Purchase prices are differentiated according to groups of farms with due regard for many factors. Owing to this, the economic conditions of management of kolkhozes and sovkhozes have been equalized to a significant degree, which is of fundamental importance in the matter of strengthening of cost accounting. Unprofitable production has been basically eliminated in the republic.

The collective of the Osnezhitskiy Kolkhoz, Pinskiy Rayon, Brestskaya Oblast, has attained a high level of production development. The farm specializes in the production of beef and milk. On the average, during the 10th Five-Year Plan the yield of grain crops on the kolkhoz totaled 48 quintals per hectare, which is twice as high as on other farms in the rayon. The yield of sugar beets totaled about 500 quintals per hectare and of fodder root crops, about 800. During the 10th Five-Year Plan milk yield per feeder cow totaled 4,690 kg and the average daily increase in the live weight of large-horned cattle, 540 g. The productivity of animals on the Osnezhitskiy Kolkhoz is much higher than on other farms in the rayon. This is a highly profitable farm. The kolkhoz has more than 1 million rubles of annual net income.

This farm skillfully combines purposeful work on the strengthening of the material and technical base, rise in the standard of farming and animal husbandry and introduction of scientific and technical achievements and principles of cost accounting. A skillful application of material incentives played an important role in the advance of the kolkhoz economy. It is directed toward an increase in the interest of kolkhoz members in improving end results, increasing labor productivity and reducing personnel turnover.

Cost accounting is skillfully utilized on the Sovkhoz imeni 50-Letiya Velikogo Oktiabrya in Dnepropetrovskaya Oblast and on many other farms in the country. A wide popularization of advanced experience in improvement of cost accounting relations and its introduction into practice with due regard for local conditions are important potentials for an increase in the efficiency of agricultural production.

The effectiveness of cost accounting largely depends on the level of production profitability. In turn profitability to some extent is the result of application of the principles of cost accounting and, primarily, the policy of economy. It is

well known that economic management on a cost accounting basis requires a certain level of profitability. Calculations show that the necessary level of profitability of kolkhozes and sovkhozes (ratio of profit to production costs) comprises approximately 40 percent. Owing to extremely unfavorable weather conditions, increase in production costs and shortcomings in the price mechanism, an unsatisfactory situation with profitability has been formed on a number of kolkhozes and sovkhozes in the last few years.

The existing system of purchase prices does not ensure a relatively equalized profitability of agricultural sectors. On the whole, the profitability of production of plant products is much higher than the profitability of animal husbandry. It is not a question of an absolute equalization of profitability levels, but of their substantiation. It is well known that the profitability of production of sunflower seeds, grain as a whole and fruit crops is comparatively high and the profitability of production of potatoes, factory sugar beets and open-ground vegetables is low. Often the production of these products is even unprofitable. The profitability of egg production is also comparatively high. At the same time, milk production has a low profitability and is unprofitable on some farms. Elimination of the unsubstantiated differences in the levels of profitability of agricultural products is one of the most important directions in the improvement of purchase prices.

It should be noted that the shortcomings in the formation of prices of agricultural products have a negative effect on the stimulation of efficient specialization and improvement of the quality of output. An expansion of the volumes of production of unprofitable and low-profitability products through the intensification of specialization is necessary from the point of view of the national economy, but it is in conflict with the economic interests of kolkhozes and sovkhozes, because a reduction of profit often results in an increase in losses. There is the same situation with the stimulation of the quality of output. As a rule, the production of higher-quality products is connected with additional expenditures. Purchase prices of many products are insufficiently connected with the criteria of quality of output. For example, the prices of hard wheat are insufficiently connected with the content of gluten and the prices of milk do not take into account the content of protein in it. Such a situation does not stimulate the implementation of measures by kolkhozes and sovkhozes for an improvement in the quality of output. The further strengthening of cost accounting, especially on unprofitable and low-profitability farms, generates a need to improve purchase prices and to increase the profitability of production. The level of purchase prices should meet the requirements for a systematic realization of cost accounting relations and the set tasks for an economic and social development of agriculture. The basic ways of improving purchase prices and of increasing profitability, wherever possible, should be coordinated to a greater extent with the measures for an improvement of the prices of industrial products consumed in agriculture and of the services rendered to it. The decree of the July (1978) Plenum of the CPSU Central Committee points to the need for "...the USSR State Planning Committee, the State Committee on Prices of the USSR Council of Ministers and the USSR Ministry of Agriculture to more profoundly engage in problems of formation of prices of both agricultural and industrial products supplied to this sector and of services, paying special attention to an economic substantiation of prices and their more efficient utilization as an effective lever of the further development and improvement of agricultural production."

Purchase price increments play a specific role in the formation of the profitability of kolkhoz and sovkhos production. They are to stimulate an increase in the production and an improvement in the quality of products. In 1981-1985 kolkhozes, sovkhoses and other state agricultural enterprises and associations are paid increments at the rate of 50 percent of the purchase prices for the sale of grain, sunflower seeds, sugar beets, raw cotton, soybeans, flax and hemp products (straw, stock and fiber), potatoes, tea leaf, tobacco, common hop, mustard, essential oil crops, poppy, livestock, poultry, milk, wool, eggs, karakul and velvet antlers to the state in excess of the average level attained during the 10th Five-Year Plan.

The progressive nature of such an approach lies in the fact that stimulation is directly connected with a real growth of production and improvement in the end result. The more fully internal production growth potentials are utilized, the weightier the income obtained from purchase price increments will be. The introduction of 50-percent increments for exceeding the attained level contributes primarily to an advance of the economy of economically weak and average farms. At the same time, the interests of highly profitable farms are not infringed upon considerably, because they have many more commodity resources and their production costs are lower.

At the same time, the problem of increase in profitability cannot be solved only through an improvement of prices. First of all, it is necessary to systematically and steadily increase labor productivity and to lower production costs. An elimination of the losses and spoilage of finished products, improvement in the quality and assortment of products and so forth are of no lesser significance. In this respect the potentials are considerable. The following are the most important: introduction of scientifically substantiated systems of economic management and of the achievements of scientific and technical progress and advanced experience and the maximum possible strengthening of cost accounting.

Financial-credit levers play an important role in the strengthening of cost accounting. The financial resources of kolkhozes and sovkhoses should be formed on a cost accounting basis, that is, in direct relationship to the results of economic activity. A temporary shortage of internal funds should be compensated for with credits. Such a situation does not exclude the financing of a number of expenditures from the funds of the state budget. These are expenditures connected with a fundamental improvement of land, land reclamation and irrigation, construction of state animal husbandry complexes and a number of other measures.

The distribution of gross and net income plays an exceptionally important role in the management of kolkhoz finances. In its structure the gross income of kolkhozes consists of two parts: the consumption fund and the accumulation fund. Optimization of the correlation of these two funds is of fundamentally great importance. The correlation should ensure the material interest of kolkhoz members in labor and the necessary rates of economic development.

On sovkhoses the task lies in a considerable rise in the role of internal funds in financial resources. In the last few years their share has been reduced, which has a negative effect on the development of sovkhos production. The situation can be rectified through the mobilization of internal production growth potentials and reduction of production costs. This equally applies to kolkhozes.

Credit levers play a definite role in the strengthening of cost accounting. At the same time, it should be stipulated that credits are more effective when they perform the functions inherent in them, that is, compensate for the temporary shortage of internal kolkhoz and sovkhoz funds.

Basically, short-term credits are advanced to kolkhozes in two variants: from simple loan accounts and from special current accounts. This is direct bank crediting without advances of procurement organizations. Credits for production expenditures are allocated for the coverage of the seasonal shortage of funds throughout the farm, including the monetary part of the wage fund of kolkhoz members.

Crediting from simple loan accounts is constructed as follows. All the proceeds from the sale of products and other incoming money, except for funds to be directly entered in the capital investment account, are entered in the current kolkhoz account. From this account funds are issued for wages, payment to suppliers for commodity stocks and for the services rendered and other monetary expenditures. Credits are granted from simple loan accounts within the limits of the seasonal shortage of funds throughout the farm in accordance with the financial production plan, that is, for wages; payment for the acquired commodity stocks and for the services rendered; depreciation allowances within the limits of the amounts envisaged in the financial production plan. Kolkhozes can receive loans for contributions to centralized funds if they do not have funds in current accounts, or if they are insufficient.

From the current account expenses are incurred in a certain order. The first group of the order of payments includes primarily the issue of wage payments and payments to the budget.

In crediting from special current accounts only one special current asset and liability account is opened for the kolkhoz for the basic activity. Funds kept in the current and special current account are entered in this account and all the time and overdue debts, subject to liquidation in a given year, on short-term loans for production expenditures, debts entered in individual loan accounts, are also transferred to it. All the proceeds from the sale of output and for the performance of services, insurance compensation for lost crops and young animals, the cost of young animals transferred to the basic herd and other funds not to be directly entered in capital investment accounts are entered in the special current account. The payment for all the expenditures on the basic kolkhoz activity is made from this account. At the end of each quarter the limit of short-term credits is established for kolkhozes. In crediting from special current accounts the limit of issue of funds is established in agreement with the kolkhoz for every quarter.

Irrespective of the crediting procedure a uniform annual interest rate of 1 percent on a time loan and of 3 percent on an overdue loan is set for the use of short-term credits.

Short-term credits are advanced to sovkhozes from a special loan account. From this account credits are granted for seasonal above-standard production expenditures, commodity stocks, the intraannual shortage of internal funds intended according to the plan for major repairs and housing and municipal services and other planned expenditures. The proceeds from the sale of output and the rendered services and other incoming money are entered in this account.

Accounting documents for commodity stocks and services are paid for and funds for wage payments are issued from this account and state social security contributions are transferred to it. Depreciation allowances for the replacement of fixed capital, profit and other operations are transferred to the current sovkhos account. Debts on loans are liquidated from this account. Credits are also advanced to sovkhoses for an increase in the cost of stocks and expenditures carried over to the following year, for initial cultivation of reclaimed land, for an increase in the standard of internal circulating capital and for expenditures on the formation of the basic herd of animals.

The same long-term credit terms have been established for kolkhoses and sovkhoses. Credit is issued for the financing of capital investments. Depending on specific capital investment projects credits are issued for a period of up to 3, 5, 6, 7, 8, 12, 15 and 20 years. The beginning of liquidation of credit depending on the project for whose financing it is granted is set from the second, third, fifth, sixth and seventh year. For the use of credits annual interest of 0.75 percent on time loans and 3 percent on overdue loans is charged every quarter.

The system of short- and long-term credit for kolkhoses and sovkhoses needs to be improved. For kolkhoses it would be advisable to establish a single procedure of short-term crediting from special current accounts. It is also necessary to simplify the procedure of credit formulation. Many provisions have acquired formal significance, which complicates the crediting process. The determination of the optimum limits of credit is an important direction in the intensification of its effect. Credits should not compensate for the shortage of funds, which is the consequence of insufficiently improved economic relations of the state with kolkhoses and sovkhoses. Without this it is difficult to increase the responsibility and interest of farms in an efficient utilization of credits.

It is necessary to improve the system of income tax and profit distribution. The fact that the income tax system is constructed without a specific accounting of differential income is its significant shortcoming. The percent of profitability as applied to specific kolkhoses is by no means of the same economic significance. Therefore, in income tax payments kolkhoses are not placed under the same conditions. It would be more correct to connect income tax with the bulk of the net income.

In the last few years a great deal has been done to strengthen cost accounting relations in all the links of agroindustrial production. Their overall improvement is directed toward a fuller realization of the capabilities of kolkhoses, sovkhoses and interfarm enterprises in the matter of increase in production efficiency and work quality and their economic interest and responsibility for the fulfillment of the programs of the 11th Five-Year Plan. The importance of this work is especially great at the present stage, which places great responsibility on managers and specialists.

#### RECOMMENDED BIBLIOGRAPHY

1. Lenin, V. I., "Poln. Sobr. Soch." [Complete Works], Vol 33, pp 91-102; Vol 36, pp 153-162 and 171-175; Vol 44, pp 150-151; Vol 54, pp 150-151.

2. "Materialy XXVI S'yezda KPSS" /Materials on the 26th CPSU Congress/, Moscow, Politizdat, 1981, pp 31-52 and 197-206.
3. "O Dal'neyshe Sovershenstvovanii Khozyaystvennogo Mekhanizma i Zadachakh Partiynykh i Gosudarstvennykh Organov" /On the Further Improvement of the Economic Mechanism and Tasks of Party and State Bodies/. Decree dated 12 July 1979 of the CPSU Central Committee. "Ob Uluchshenii Planirovaniya i Usilenii Vozdeystviya Khozyaystvennogo Mekhanizma na Povysheniye Effektivnosti Proizvodstva i Kachestva Raboty" /On Improving Planning and Strengthening the Influence of the Economic Mechanism on Increasing Production Efficiency and Work Quality/. Decree dated 12 July 1979 of the CPSU Central Committee and the USSR Council of Ministers, Moscow, Politizdat, 1980.
4. "On Improving the Planning and Economic Stimulation of the Production and Procurement of Agricultural Products. Decree dated 14 November 1980 of the CPSU Central Committee and the USSR Council of Ministers," EKONOMICHESKAYA GAZETA, 1980, No 52.
5. "Resheniya Partii i Pravitel'stva po Sel'skomu Khozyaystvu (1965-1971)" /Party and Government Decisions on Agriculture (1965-1971)/, Moscow, Kolos, 1971.
6. "On the Further Development of Construction of Individual Dwelling Houses and Retention of Personnel in Rural Areas. Decree dated 19 June 1978 of the CPSU Central Committee and the USSR Council of Ministers," SP SSSR, 1978, No 17, p 102.
7. "On Measures for the Further Improvement of Planning Estimates. Decree dated 30 March 1981 of the CPSU Central Committee and the USSR Council of Ministers," SP SSSR, 1981, No 14, p 84.
8. "On Individual Housing Construction. Decree dated 5 October 1981 of the USSR Council of Ministers," SP SSSR, 1981, No 29, p 170.
9. Brezhnev, L. I., "Leninskim Kursom" /Following Lenin's Course/, Vol 1, Moscow, Politizdat, 1970, pp 66-100; Vol 7, Moscow, Politizdat, 1979, pp 393-436.
10. Brezhnev, L. I., "Voprosy Upravleniya Ekonomikoy Razvitogo Sotsializma" /Problems of Management of the Economy of Developed Socialism/, Moscow, Politizdat, 1976.
11. Brezhnev, L. I., "Rech' na Plenum Tsentral'nogo Komiteta KPSS 16 Noyabrya 1981 Goda" /Speech at the Plenum of the CPSU Central Committee dated 16 November 1981/, Decree of the Plenum of the CPSU Central Committee, Moscow, Politizdat, 1981.

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## AGRO-ECONOMICS AND ORGANIZATION

### PRIVATE PLOT PRODUCTION DATA

#### Contracts With Consumer Cooperatives

Moscow ZAKUPKI SEL'SKOKHOZYAYSTVENNYKH PRODUKTOV in Russian No 11, Nov 81 pp 30-32

/Article by V. Sinyakov, chief of the Main Administration for Procurements and Trade of the USSR Central Union of Consumers' Societies and D. Yermak, state inspector for the USSR Ministry of Procurements: "Increasing Procurements of Agricultural Products From the Population"

/Text Workers in consumer cooperation are constantly devoting a great amount of attention to developing the production of agricultural products at the kolkhozes and sovkhozes. This constitutes a principal reserve for procurements. At the same time, a definite amount of work is being carried out in connection with increasing the production of these products on the private plots of rural residents. Special concern is being displayed for developing collective horticulture and gardening on the private plots of kolkhoz members, office workers and other citizens and organizing procurements on these farms of animal husbandry products, potatoes, vegetables, fruit and honey.

The cooperation specialists in all areas are providing assistance in implementing active methods for procuring the agricultural products, they are expanding the rounds being made of the farms and the visits to populated points and they are concluding agreements with the population for the procurement of surplus agricultural products from the private plots of citizens and members of horticultural societies.

Consumer cooperation is one of the principal procurement organizations for potatoes, vegetables, fruit, melons, grapes, dry fruit, wool, karakul pelts, eggs, fur pelts, leather and other raw materials and also wild-growing products. It carries out procurements, in large volumes, of surplus agricultural products from the population. In 1961, for example, the cooperation specialists concluded approximately five million agreements with the country's population, or 1.3 million more agreements than in 1960, including for 157,400 tons of meat, 691,000 head of poultry, 2.36 million rabbits, 334 million eggs, 8,300 tons of milk, 667,000 tons of potatoes, 371,000 tons of vegetables, 151,000 tons of fruit and 7,500 tons of dry fruit.

It bears mentioning that the increase in the number of agreements concluded with the population for procurements of surplus agricultural products testifies to the

increasing level of organizational work being carried out by the procurement organizations of Tsentrosoyuz /USSR Central Union of Consumers' Societies/.

A number of potrebsoyuz's /union of consumers' societies/ in the Russian Federation are carrying out active work with the population and this is also borne out by data on the concluding of agreements with citizens for the procurement of surplus agricultural products. Thus, in 1981 the Krasnodar Potrebooyuz concluded 78,000 agreements, Rostov -- 74, Irkutsk -- 45, Bryansk -- 49, Belgorod -- 154 and the Voronezh Potrebooyuz -- 91,000 agreements.

On the whole, however, the Russian Potrebooyuz could have higher indicators. In 1981, only 2 million agreements, or 572,000 fewer agreements than in 1980 were concluded by cooperative procurement organizations.

Let us examine the Altayskiy Kray Potrebooyuz. This is a large commodity region of the country. However, the cooperation specialists are not carrying out sufficient work here with the population. In 1981, they concluded in all only 3.8 million agreements, or 200,000 less than were concluded the previous year. Moreover, in 1978 the workers attached to the kraypotrebsoyuz /kray union of consumers' societies/ handled incorrectly the distribution of deficit industrial goods during the conclusion of agreements and they failed to take existing potential into account, as a result of which the obligations stipulated in the agreements were not carried out and the goods called for were not sold to the population.

Work with the population has been organized in a very poor manner by the Astrakhan Oblrybolovpotrebsoyuz /Oblast union of fishermen's cooperatives/, which in 1981 concluded only 3,700 agreements. Nor is the situation any better at the Kostroma Oblrybolovpotrebsoyuz, where only 2,300 agreements were concluded.

Compared to the Moldavian Potrebooyuz which in 1981 arranged 161,000 agreements, or 13,000 more than in 1980, the figures for the Kirghiz Potrebooyuz were 9,000 and 3,000 agreements respectively, the Armenian Potrebooyuz -- 65,000 and 60,000 agreements and the Belorussian Potrebooyuz -- 182,000 and 170,000 agreements respectively. Making the rounds of the private plots, visits to populated points and the concluding of agreements with the population for the procurement of agricultural products represents at the present time one of the most important forms of organizational work by the procurement specialists of consumer cooperation. When carrying out this work, it is also possible to ascertain the requirements of the farms, provide them with appropriate aid and assistance, orient them towards the growing of a particular product or to breeding livestock and also to ascertain the available resources in agricultural products for procurement by the procurement office and to explain which products are being procured, where they are being accepted and the conditions for such acceptance.

When concluding agreements with the population for the procurement of agricultural products, more extensive use must be made of the privileges and advantages that are available for the suppliers, in conformity with the decree of the CC CPSU and the USSR Council of Ministers regarding the private plots of citizens.

In 1981, in conformity with the approved plan, the population must acquire more than 13 million young pigs and 580 million chicks.



Permanent receiving-procurement points are considered to be a most important element with regard to organizing procurements of agricultural products among the population. The model statute concerning such receiving-procurement points was approved by a decree handed down by the Tsentrosoyuz Administration on 19 June 1979.

The permanent receiving-procurement points organize the procurements of agricultural products, they furnish assistance in increasing the production of such products on the private plots of citizens and they carry out work aimed at achieving greater participation by the population in gathering up wild-growing products and selling them to consumer cooperation. Workers assigned to these points maintain constant contact with citizens having private plots and with horticultural-gardening associations and they bring to light the resources for the agricultural output, so as to ensure their complete use for procurement purposes. The suppliers are provided with the materials required for packaging and transporting the products and the workers also render practical assistance in ensuring that the products are delivered to the receiving-procurement points.

At the present time, a weak spot in the area of procurements is the absence of a primary unit for continuously operating all-round receiving-procurement points. At the present time, there are less than 5,000 such enterprises for 32 million farmyards. Thus, from 60,000 to 65,000 additional temporary (seasonal) points must be opened each year. Quite often these points are established in unsuitable facilities, in the homes of temporary receivers of the products.

Procurement experience reveals that the availability of permanent all-round receiving-procurement points makes it possible to increase considerably the procurement volumes for agricultural products. This is borne out by the work of cooperation specialists of the Ukrainian Potrebsoyuz and also the potrebsoyuz's in the Russian Federation and the Baltic republics.

At the same time, serious derelictions are being observed at the Kazakh potrebsoyuz in connection with the organization of procurements from the population. Not enough work is being carried out here with the population, for all practical purposes there is no logistical base for the procurements, there is a shortage of procurement specialists and the trade network for the sale of agricultural products is being developed in a very weak manner.

The two neighboring republics, Kazakhstan and Uzbekistan, although they differ in terms of territory are nevertheless the same in terms of their rural populations, number of farmyards, availability of private plots for the citizens and number of livestock. Yet the operational results of these potrebsoyuz's differ greatly according to their procurements of agricultural products.

The Uzbek Potrebsoyuz has 227 permanent receiving-procurement points, whereas the Kazakh Potrebsoyuz -- for a territory that is six times larger -- has only 65, or one point for every 25,000 farmyards.

The administration of Tsentrosoyuz has developed a long-range program for developing a network of permanent receiving-procurement points, with 3,985 points to be opened prior to the end of 1980 and 12,000 multi-purpose receiving-procurement points to be opened during the Eleventh Five-Year Plan. In addition,

a task has been established for the potrebsoyuz's of union republics calling upon them to create, during the 1981-1983 period, 500 seasonal store-points for the procurement of surplus agricultural products, including 3,900 for the Russian Potrebsoyuz, 500 for the Ukrainian and 350 for the Kazakh Potrebsoyuz.

This measure will make it possible to create, in the principal commodity regions of the country, the conditions that are required for organizing work with the private plots, it will improve the procurement of products from the population and it will also make it possible to select and strengthen the permanent staff of managers and procurement specialists at these points.

The task of the procurement organizations consists of ensuring the accelerated construction of receiving points in the number called for in the established task and staffing them with specialists.

During the construction of the receiving-procurement points, attention must be directed to their locations. Consideration must be given to the size of the populated point, its remoteness from the regional center or city, marketability and other factors. In remote regions, for example, the products are always cheaper and yet the population experiences great difficulties and expenses in delivering them to a rayon center for sale at a kolkhoz market. Thus it is more advantageous for people residing in these regions to sell their products locally.

In organizing the procurement of agricultural products from the population, one must not overlook the problem of advertising or notifying residents, by means of the press or radio, regarding the procedures to be followed and the areas where the agricultural products will be accepted. Last year, Glavkoopzagottorg of Tsentrosoyuz ordered and distributed among the raypotrebsoyuz's approximately one million copies of leaflets and colorful placards having to do with procuring surplus agricultural products from the population.

The workers in consumer cooperation attach great importance to disseminating the leading forms and methods for procurement work, since this promotes maximum use of the resources and also increases in the procurement of surplus agricultural products from the population.

Many raypotrebsoyuz's and procurement offices have accumulated positive experience in this regard and they are fulfilling and over-fulfilling their established planned tasks. Thus the Krasnodarskiy Kray Potrebsoyuz achieved a considerable increase in the procurement volumes for surplus agricultural products obtained from the population. In 1980, the Potrebsoyuz procured 12,000 tons of fruit and 18,000 tons of vegetables from the population and overall 145 million rubles worth of agricultural products were obtained from the private plots.

This was promoted by a great amount of organizational work carried out by the entire procurement organization. There are 358 permanent receiving-procurement points serving the kraypotrebsoyuz and during the procurement season more than 1,000 additional temporary receiving-procurement points are opened up for operations. On the average, each procurement specialist services no more than 400 farmyards. In 1980, 547,000 private plots were inspected and, based upon the situation on 15 May 1981, 78,524 agreements were concluded in the kray for the procurement of surplus agricultural products from the population. Extensive use is being made here of visits to the farmyards in the interest of uncovering all resources, with

almost all workers assigned to procurement offices, the raypo /rayon consumers' society/ and public catering participating in this work. Each procurement specialist knows his zone of services and he actively carries out all of the measures planned for procuring products.

The kraypotrebsoyuz directs the procurement organizations to conclude long-term agreements for 3-5 years, it strives to install specialized stores and "home-orchard-garden" departments at existing stores of "Khoztovary," where orders can be taken for goods obtained from the population and orchard-gardening societies and it equips motor vehicles for the transporting of meat and livestock.

In the procurement office of the Pashkovskiy Raypo of this potrebsoyuz (Director I.N. Gonkalov), I.S. Ivchenko, who fulfilled his tenth five-year plan in just 2.5 years, is quite properly considered to be the best procurement specialist.

There is much to be learned from this experienced procurement specialist. He organizes his work in a skilful manner and he gives careful thought to the best means for carrying out a particular measure. The successful work performed by I.S. Ivchenko is largely the result of his maintaining constant and business-like contacts with the population, with sovkhoz and kolkhoz leaders and with members of the executive committee of the settlement soviet of people's deputies. Long before the commencement of spring operations, he begins his rounds of the farmyards, where he defines more precisely the resources that are available and concludes agreements for the procurement of agricultural products. After computing the probable procurement volumes, he determines the places where additional seasonal receiving points should be opened, he calculates the requirements for packaging materials and delivers it to the receiving points and private plots, he prepares schedules for visits to the private plots and orchard and gardening associations and he notifies the population regarding the dates and times for the visits by the procurement specialists. He devotes special attention and concern to providing for the needs of invalids of the Great Patriotic War and labor.

The Kemerovskaya Oblast Potrebsoyuz achieved a considerable increase in its procurements of agricultural products. During the 1976-1980 period, the meat procurements here increased from 565 to 3,500 tons, eggs from 1.6 to 3.5 million, honey -- increased by a factor of 2.5 and milk -- by a factor of 1.7.

Thirty five Ural motorcycles, 73 carpets, 34 small automobiles and many other deficit items valued at 300,000 rubles were sold to active suppliers of agricultural products.

Valuable experience in the successful development of social production and private plots has been accumulated in the Russian Federation, Belorussia and in other republics and also in a number of oblasts throughout the country. In Tul'skaya Oblast, for example, 750 head of large-horned cattle, 500 sheep and 350 swine are being maintained at 400 farmyards of the Bakhmet'yevskiy Village Soviet. In Grodnenskaya Oblast, there are 96 head of large-horned cattle and 126 swine for every 100 rural families. Large quantities of milk and meat are being procured from the population on the basis of agreements. Procurement experience reveals that in those areas where the Soviet organs provide active assistance to the population in acquiring private plots, increases are observed in the production of goods and with large quantities of these goods reaching the procurement points.

Thus, during the past five-year period, Kalachinskiy Rayon in Omskaya Oblast sold 1,759 tons of meat and 2,471 tons of milk to consumer cooperation.

In Ivanovskaya Oblast during the last five-year plan, the number of large-horned cattle obtained from the population increased by 7,000 head and swine -- by 28,000.

The cooperation specialists in the Ukrainian SSR have accomplished a great deal with regard to realizing improvements in the procurement of agricultural products from the population.

Certain populated points have been assigned to each procurement organization of a potrebsoyuz. In many regions the procurements of surplus agricultural products are being carried out directly on the private plots of kolkhoz members and sovkhoz workers and employees and also at horticultural and gardening associations. In the case of procurements of meat, milk, eggs, potatoes, vegetables and fruit from the population, all of the products are as a rule of high quality and thus the trade organizations readily use these products for food purposes through stores of consumer cooperation.

As a result of the constant attention given to the procurement of surplus agricultural products from the population by the rayzagotinspektsiya, the Ukrainian procurement specialists succeeded in procuring the following from the population during 1980: meat -- 238,000 tons, poultry -- 4.95 million units, fat and lard -- 15,400 tons, milk and milk products -- 7,000 tons, eggs -- 95.98 million, flour, groats and grain -- 85,000 tons, vegetable oil -- 32, honey -- 7, potatoes -- 15, vegetables -- 54.8, fruit -- 51, dried fruit -- 11,000 tons. This constituted a substantial contribution towards increasing the procurement volumes and augmenting the food resources, in the interest of ensuring a continuous supply of food products for the population through commission stores.

Fine results were achieved by the procurement organizations of consumer cooperation in Dnepropetrovskaya, Chernigovskaya, Khmel'nitskaya, Volynskaya, Sumskaya and Zhitomirskaya Oblasts, all of which over-fulfilled their plans for procuring potatoes and other agricultural products from the population by a factor of 1.5-2. Thus, on the average, more than 250 kilograms of potatoes were procured per farmyard in Chernigovskaya Oblast during the Tenth Five-Year Plan.

However, the workers in consumer cooperation in the Ukraine still have many unused reserves available for increasing the procurements of agricultural products from the population. Many of the procurement specialists are inefficient and there are shortages of equipment, transport vehicles and refrigerators. As a result, the procurement points are unable to handle large quantities of meat, milk, vegetables, fruit and other products. The logistical base for the receiving points must also be strengthened, the construction and modernization of processing enterprises must be expanded and they must be provided with the necessary equipment.

In solving the tasks assigned by the 26th CPSU Congress, in connection with the food program developed for the country, a considerable role must be played by the state inspections for procurements and the quality of agricultural products.

Under the direction of party and Soviet organs, the state inspections exercise control over strengthening the logistical base of the receiving points of

consumer cooperation and expanding the construction and modernization of processing enterprises. The inspections have raised their exactingness over those farm leaders who are furnishing only weak assistance to the residents of villages and towns in acquiring private plots.

Control by the state inspections over the course of procurements of agricultural products from the population is carried out on the basis of quarterly plans, which have a breakdown by months. This control is directed towards improving the work of consumer cooperation and the processing enterprises and making complete use of all resources associated with the procurement of surplus agricultural products from the population.

The state inspections devote special attention to expanding the logistical base for the procurements of consumer cooperation and the processing enterprises of the USSR Ministry of the Food Industry and they also exercise control over use of the resources allocated for the construction of vegetable and potatoe storehouses, fruit storehouses, refrigerators and receiving points.

An important sector for organizational work by the state inspections is that of searching for additional commodity resources among the population for meat, milk, eggs, potatoes, vegetables, fruit and wild-growing products.

Each year, prior to the commencement of agricultural product procurements, the state inspections, jointly with the executive committees of village soviets, carry out preparatory work for the procurement of meat, milk, eggs, honey, potatoes, vegetables, fruit and wild-growing fruit, berries, mushrooms, nuts and medicinal plants. Towards this end, extensive use is made of the press, radio and television.

In the country's vegetable balance, a considerable proportion is occupied by the crops obtained from private plots and collective gardens. Consumer cooperation should provide the population with more assistance in this important work. It should provide the owners of private plots with orchard and gardening tools, fertilizers, chemicals, it should develop the trade network and improve the work of the kolkhoz markets and it should furnish assistance to the population in the delivery and sale of surplus meat, milk, eggs, potatoes, vegetables and fruit. This constitutes the primary responsibility of workers assigned to consumer cooperation, who by virtue of their selfless labor are making a worthy contribution towards improving the food situation during the Eleventh Five-Year Plan.

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#### Final Totals Added

Moscow ZAKUPKI SEL'SKOKHOZYAYSTVENNYKH PRODUKTOV in Russian No 3, Mar 82, 10

/Article: "Returning To the Printed Word"/

/Text/ In the article by V. Sinyakov and D. Yermak entitled "Increasing Procurements of Agricultural Products From the Population," published in Issue No. 11 for 1981, preliminary numerical data was furnished on procurements of agricultural products from the population.

The final results for 1981 with regard to the animal husbandry and field crop husbandry products obtained from the population were summarized in January.

Considerably greater quantities of these products were obtained from the private plots of citizens than were obtained in 1980. Thus, 306,000 tons of meat were procured, poultry -- 1.12 million head, rabbits -- 3.83 million head, eggs -- 512 million, milk -- 18,500 tons, potatoes -- 1,350, vegetables -- 560, fruit -- 233, dried fruit -- 11,000 tons.

The cooperation specialists concluded more than 8 million agreements with the population, or 1.7 million more agreements than in 1980. The greatest number of agreements with the population for the sale of agricultural products were concluded by cooperation specialists in the RSFSR -- 40,540 agreements, the Belorussian SSR -- 244, Moldavian SSR -- 205.9, Armenian SSR -- 88,400 agreements and also by the cooperation specialists of the Rostov Potrebsoyuz -- 157,000 agreements, Belgorod -- 171.2, Voronezh -- 176,300 agreements and others.

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## AGRO-ECONOMICS AND ORGANIZATION

### MEASURES TAKEN TO INCREASE KAZAKH PRIVATE PLOT PRODUCTION

Moscow ZAKUPKI SEL'SKHOZYAYSTVENNYKH PRODUKTOV in Russian No 3, Mar 82 pp 8-9

[Article by V. Borisenko, state inspector of the Kazakh SSR Ministry of Procurements, "Private Subsidiary Farms -- A Part of the General Wealth"]

[Text] Increasing our supply of food products has always been a subject of special concern for our party. At the 26th CPSU Congress a number of measures were earmarked which were to serve as a basis for further developing the food program. In addition to the kolkhozes and sovkhoses, the population must also participate actively in carrying it out.

Again at the 16th Congress of USSR Trade Unions, General Secretary of the CPSU Central Committee, Comrade L. I. Brezhnev said: "The basis for the formation of state commercial resources of foodstuffs is undoubtedly public production. At the same time it is important to take full advantage of the possibilities of private subsidiary farms. Local agencies, kolkhozes and sovkhoses are called upon to contribute to the success of this work. Consumers' cooperation could also render important assistance."

These words found heartfelt response among the rural population of the country, including our republic. Thousands of people are raising cattle and poultry and tens of thousands of hectares belonging to workers and employees are now planted in vegetables, potatoes, grapevines and fruit trees.

Our land is public property and the state is not indifferent to how we use it: whether it be the kolkhoz or sovkhos field, the collective garden or the farmstead plot. It has been clearly stated in the corresponding party and government documents that the question of private farms of kolkhoz and sovkhos workers and other citizens is of statewide importance.

The republic has earmarked concrete measures for increasing the production of agricultural products on the private subsidiary farms of the kolkhoz workers, other workers and employees and other citizens, further developing collective garden and orchard raising, and improving the procurement of surplus products from the population.

The ispolkoms of the soviets of the people's deputies have been instructed to take measures to allot to citizens who have their own livestock plots of land for



grazing livestock and haying and also land for garden and orchard growing. Among the measures that contribute to increasing the production of products on the private subsidiary farms of the population and their sale to the state, one should note the creation in local areas of a network of receiving and procurement points for receiving potatoes, fruits, vegetables and animal husbandry products from the population. Additionally, citizens with whom agreements have been concluded for the procurement of agricultural products can, if necessary, be granted a monetary advance when animal husbandry products are procured in the amount of up to 50 percent and crop growing products--up to 30 percent of the sum of the agreement.

During the past period the republic has done a certain amount of work for further development of private subsidiary farms and organization of increased procurements of surplus agricultural products of the residents.

In 1981 the republic's population had 185,400 hectares of farmstead plots, 20,300 hectares of collective orchards and 33,600 hectares of collective gardens. Private subsidiary farms were developed most extensively in such oblasts as Alma-Atinskaya, Vostochno-Kazakhstanskaya, Kustanayskaya, Pavlodarskaya, Severo-Kazakhstanskaya and Semipalatinskaya.

In 1980 the ispolkoms of the soviets of people's deputies allotted an additional quantity of land for collective gardening and orchard raising. Thus 900 hectares were added to the collective "garden" in Alma-Atinskaya Oblast, almost 3,000 hectares in Kustanayskaya Oblast and 2,200 hectares in Pavlodarskaya Oblast.

In Pavlodarskaya Oblast 130,000 families have 15,000 hectares of land, of which 4,000 hectares are planted in collective gardens. In this oblast there are 16 societies of garden and orchard growers, eight of which are in Pavlodar, six in Ekibastuz and two in Yermak. Such societies exist in the other oblast centers of the republic as well. For example, Kokchetavskaya Oblast has created 23 fraternal societies of garden and orchard lovers.

The kolkhozes and sovkhoses of Alma-Atinskaya Oblast have developed and are implementing measures for rendering assistance to individual farms; they are allotting feeds and granting monetary loans. In Taldy-Kurganskaya Oblast they ship in garden supplies and fertilizers and sell them to the population, and through the consumers' cooperatives they allot commodities under agreements that have been concluded with individual farms.

In Tselinogradskaya Oblast, upon the conclusion of agreements for the sale of crop growing products (especially potatoes), individual farms are granted a monetary advance in the amount of 30 percent of the sum of the agreement.

In the republic as a whole there is a large network of receiving and procurement points for receiving surplus agricultural products from the population. There are 129 of them for receiving fruits, vegetables and potatoes. Of these there are 45 in Kokchetavskaya Oblast, 14 in Tselinogradskaya, 13 in Vostochno-Kazakhstanskaya, 12 in Chimkentskaya, and 8 in Ural'skaya.

State inspection teams for procurements and quality of agricultural products in the oblast and rayons render constant assistance to individual farms in marketing the products that are sold to the state, determining their quality indicators and keeping accounts with procurement workers. They also do other organizational work.

The most organized procurements of potatoes from the population during the past five years were carried out in Severo-Kazakhstanskaya and other oblasts. A large quantity of vegetables were purchased from the population during that period in Dzhambulskaya, Taldy-Kurganskaya and Chimkentskaya oblasts.

During the Tenth Five-Year Plan as a whole the republic's population sold the state 181,252 tons of vegetables in excess of the established volumes.

Procurements of melon crops are being carried out successfully in this sector in Chimkentskaya Oblast: during the five-year plan the oblast's population sold the state 174,747 tons of watermelons and other melons and Kzyl-Ordinskaya Oblast sold 116,013 tons. Procurements of pit and stone fruits from private farms are well organized in this oblast. Almost triple the planned quantity of these were added to the state resources. More than twice the planned quantities of grapes were purchased from the population of this oblast.

It should be noted that in this oblast alone during the years of the Tenth Five-Year Plan the population sold 382,246 tons of fruits, vegetables, melon crops and grapes. Moreover, about 5,000 tons of potatoes were purchased in the individual sector here.

During all of the past five-year plan the republic's population sold the state 1,226,326 tons of potatoes, fruits, vegetables, melon crops and grapes.

The private farms of citizens and gardening societies of Alma-Atinskaya Oblast have a significant food potential. For example, the area of collective gardens of Alma-Atinskaya workers is 3,000 hectares. Alma-Atinskaya gardeners are joined together into 22 societies which include 27,000 members. In 1980 the "Second Five-Year Plan" gardening society alone sold the state 510 tons of fruits from 140 hectares of orchards and, moreover, 1,400 members of this society kept for winter storage the necessary quantity of apples and pears and processed fruit products.

Still the members of the societies are experiencing difficulties in selling the fruits they raise. Thus an average of only one sales and receiving point has been opened for every two societies, and they are not able to promptly provide packaging for all of the sections located within a kilometer radius. And the long lines of sellers and the slow payment for the products that are sold kill the desire to bring fruits to these points. Up to this point members of the gardening communities have not been given good assistance in acquiring construction materials, the problem of complete supply of irrigation water has not been solved, and the approach roads are not well constructed.

In order to eliminate the shortcomings that have been noted and increase the procurements of surplus agricultural products from the population, the CPSU Central Committee and the USSR Council of Ministers have adopted the decree "On Additional

Measures for Increasing the Production of Agricultural Products on Private Subsidiary Farms of the Citizens." This decree places great responsibility on agricultural and procurement agencies for rendering assistance to the population in acquiring cattle and other livestock, and allotting grazing and haying areas and plots of land for collective gardens and orchards. The decree devotes special attention to the development of the procurement network.

In order to improve the organization of procurements of surplus agricultural products from the population, it has been suggested that procurement workers expand the network of procurement points, paying attention to increasing procurements in remote areas, and extensively procure garden, orchard and other agricultural products through regular trips and visits to the farms of the kolkhoz workers, other workers, employees and other citizens.

With the help of the deputies of rural soviets procurement workers must visit each home and, with the manager of the kolkhoz and sovkhos, decide how they can help the kolkhoz worker, sovkhos worker or pensioner in order for them to raise and fatten more cattle and poultry or acquire a good yield of potatoes, vegetables, fruits and other farming products from their farmstead plot.

State inspection teams for procurements and quality of agricultural products in Kazakhstan should participate in the solution to these problems. Many oblast and rayon state inspection teams have engaged actively in this work. Examples of this are the state inspection teams of Chimkentskaya, Dzhambul'skaya and Taldy-Kurgan'skaya oblasts who have displayed initiative in this important matter. In Chimkentskaya Oblast, for example, in 1980 52 temporary receiving points were opened for receiving fruits and vegetables from the population, as a result of which the population sold 47,700 tons of melon crops, 21,000 tons of vegetables, 12,700 tons of stone fruits, and 11,300 tons of grapes. In Taldy-Kurgan'skaya Oblast 26,900 tons of vegetables and 7,800 tons of potatoes were purchased from the population.

In 1980 53,600 tons of vegetables were purchased from the population in Dzhambul'skaya Oblast, and 285,000 tons of orchard and garden crops were purchased from the population of the republic as a whole during this period. In Chimkentskaya Oblast alone during the years of the Tenth Five-Year Plan 387,100 tons of potatoes, fruits and vegetables were purchased from the population. And a great deal of credit for this belongs to the state inspection teams which regularly supervised and helped to solve various problems entailed in procuring surplus crop growing products from the population.

In order to improve the organization of procurements of surplus products from the population, the press, radio and television in the republic are elucidating issues related to private subsidiary farms and also collective garden and orchard raising.

In Alma-Atinskaya Oblast the week from 26 March through 3 April 1981 was the week of the amateur gardener and during this period the city markets sold the necessary supplies for cultivating the soil and equipment for caring for trees and bushes as well as mineral fertilizers and toxic chemicals.

During this period Kazpotreboysuz placed an advertisement in the paper: "If you have a private farm it is convenient to sell surplus products to procurement

workers of the consumers' cooperative." This advertisement pointed out the policy for concluding agreements, payment for procured products, the allotment of transportation and so forth.

Even now the republic is taking a number of measures to render assistance to the population in maintaining private subsidiary farms so that each tomato and cucumber that is raised, each apple and potato and each cluster of grapes reaches the store. Herein lies the primary task and duty of the procurement workers.

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## AGRO-ECONOMICS AND ORGANIZATION

### PRIVATE PLOTS, PUBLIC INTEREST

#### Social-Economic Functions Considered

Moscow EKONOMICHESKIYE NAUKI in Russian No 3, Mar 82 pp 40-46

/Article by Ch. Ionov, candidate of economic sciences and assistant professor, Stavropol': "Private Economy in the System of Socialist Production"/

/Text/ The economics of mature socialism is distinguished by a high level of socialization of production. However, even during this stage of development the various forms of the economy vary in terms of the level of socialization. Such differences are considerable when the social economy is compared against the private economy. Nevertheless, the latter is retained and is playing a notable role in the practical realization of the potential of the socialist economy and in successfully solving the food program in conformity with the modern and high requirements for satisfying more completely the requirements of the workers.

The need for and the social-economic importance of the private economy are generally well known. However, there are still many problems here which have not been solved completely: economic, social and even moral problems. The fact that the economics of the private economy have not been studied adequately as yet is acknowledged. The textbooks on the economics and organization of agricultural production are not devoting proper attention to these problems.

A method has still not been developed for planning production in the private economy. A long-term program for its development is lacking.

This form of economy has a complicated structure, its own objectively conditioned prospects for the future and its own inherent peculiarities with regard to specialization and orientation towards the specific regional conditions involved. It differs in terms of its level of productivity, marketability, the structure of its work force and so forth. In other words, it is an extremely important and specifically different field of production. Meanwhile, we still lack a clear definition of the essence of the private economy. It is obvious that the use of synonyms for the private economy is not widespread: "sector of small-scale economics," "small-scale forms of agricultural production," "special sector of economics," and so forth. In turn, these synonyms require explanations.

The definition which holds that the private economy is a type of private ownership under socialism is employed rather extensively. We are of the opinion that this is

set forth more successfully in the "Course on Political Economics," edited by N.A. Tsagolov. Here the nature of the private economy is examined from a broader standpoint. It is viewed not only as a type of private ownership but also as a form of production<sup>1</sup>. However, the authors of this particular aid scarcely succeeded in fully answering the question of exactly what is an LPKh /lichnoye podsobnoye khozyaystvo; private economy/.

Private ownership expresses the economic relationships between society and an individual worker with regard to the appropriation and distribution of objects of individual consumption, for satisfying private requirements. The work of an LPKh is somewhat different in that it expresses broader and more profound relationships which derive not only from the objects of consumption but also from the use of land -- public property and some other production resources. The subject of LPKh enters into economic relationships with society in connection with the use of land, its cultivation, the sale of surplus agricultural products and the acquisition of the logistical resources required for carrying out production on the private plots.

The belief that the LPKh is mainly associated with the kolkhoz system has taken root in economic literature. Thus, in the "Course on Political Economics," we read: "The private economy of kolkhoz members is a specific feature of the kolkhoz system during a definite stage in its development"<sup>2</sup>. This same interpretation is reflected in a textbook on political economics, where it is stated: "...the private plot of a kolkhoz member (kolkhoz farmyard) is a form of private ownership under socialism"<sup>3</sup>. A similar statement is contained in the dictionary "Political Economics"<sup>4</sup>. However, practical experience is not in agreement with this point of view. Actually, by no means is the private economy restricted to just kolkhoz members, but rather it embraces many other rural residents as well: sovkhos workers, workers attached to inter-farm enterprises, rural intelligentsia. At times, such private plots are maintained by certain municipal residents, especially those in small cities. Thus the "application" of the term LPKh only to the kolkhoz form of production is not entirely correct. The sphere of the LPKh is much more extensive. Thus, we are quite justified in stating that under the conditions of developed socialism the social-economic nature of the LPKh is the same for different categories of the country's population. The limits and nature of this form of economy are controlled not only by the Kolkhoz Regulations but also by other legislative documents and norms.

Under the conditions of developed socialism, the LPKh is not a specialized or independent sphere for the application of labor: the latter is secondary in nature here. Thus the statement which holds that "labor on the private plot of a kolkhoz member (kolkhoz farmyard) is not directly social"<sup>5</sup>, requires greater clarity and accuracy. The labor expended in this form of management is a component part of the total amount of work performed by a worker. It must be borne in mind first of all that persons working on a private plot as a rule spend a definite amount of time engaged in public production and, secondly, society establishes the limits for the private plot. Thus it follows that work performed on a private plot, regardless of the specific forms, is directed and controlled by society in conformity with its goals and requirements. The work performed on a private plot should never be viewed as being carried out by detached producers or as their private endeavor. The producers of products on private plots do not perform their work on a dissociated or uncoordinated basis, as is often the case under private ownership conditions. In a developed socialist society, the planned form for organizing the LPKh is

intensified. The work performed in this economy does not enter into antagonistic conflict with social labor. There can be no doubt but that "under socialism the directly-social nature of labor is embodied in the socialist aggregate social product"<sup>6</sup>. We are obviously justified in stating: that the output of the private economy is a component part of the aggregate social product. It would appear that labor in this sphere of production is a component part of the total amount of social labor.

The secondary nature of the LPKh signifies that its output serves as an additional source for the normal reproduction of man-power in agriculture. Hence the conclusion: labor in the private economy, which has optimum limits, is a part of the labor required. The need in the expenditures for a portion of the total amount of social labor expended in the LPKh testifies to the fact that, under the conditions of developed socialism, the level of materialization of labor is still unable to ensure the degree of the directly social nature required for mature communism.

As is known, the principal portion of the output of a private plot is used for satisfying the requirements of the family operating the plot and only a small amount of surplus products is added to the market fund and to the sphere of marketing and monetary relationships. Thus the private plots do not play a substantial role in the latter system. Whereas their proportion with regard to overall agricultural output amounts to more than 25 percent (including 31 percent of all animal husbandry output), in the structure of marketable output their proportion is only approximately 11 percent<sup>7</sup>. In this regard, it should be noted in passing that it is hardly appropriate to examine the question of private plots in the chapter entitled "Marketing Relationships" (as is the case in the "Course in Political Economics"), in a training course on political economics.

Thus, under the conditions of developed socialism, the private plots of workers constitute a form of agricultural production. They appear as a portion of the country's agroindustrial complex, in which the products of labor become objects of private ownership and serve mainly for the reproduction of man-power. Based upon the functioning of the LPKh, specific economic relationships develop in connection with the use of national land and the distribution, exchange and consumption of the agricultural products produced on that land. The subjects of these relationships are the workers in the socialist society -- kolkhoz members, sovkhoz workers, employees of state enterprises and organizations. Moreover, this is not an independent or detached form of production, but rather a derivative of the social economy. With the development of the socialist society the level and character of socialization of the LPKh gradually change. As a component part of the agroindustrial complex, this form of economy is based upon diverse relationships with social production and it is included in the system of socialist expanded reproduction.

Under the conditions of a developed socialist society, the LPKh fulfills the following social-economic functions.

First of all, it is a substantial and additional source for satisfying the requirements for the required food products of those who operate the plots. Moreover, it serves as a most important source for acquiring certain types of products in individual regions and villages, especially those which are located at some distance from large settlements and good roads.



Secondly, the LPKh participates actively in the formation of marketing funds for food goods, by supplying surplus agricultural products through the marketing channels. In this manner it promotes better satisfaction of the requirements of city-dwellers and those rural residents who do not operate or maintain private plots (especially for meat, potatoes, individual types of vegetables, fruit and so forth).

Thirdly, it serves as an additional sphere for the application of labor and for providing a harmonious combination of mental and physical labor for those persons engaged in purely mental labor (for example, rural intelligentsia) and also for those possessing only a limited working capability or who, for one reason or another, are not working in public production (pensioners and the mothers of large families).

Fourthly, the LPKh is of great social value. It promotes an increase in the work income of rural residents and it smooths out the income level between the municipal and rural populations per individual family member. Thus, this form of economy provides on the average 25 percent of the total budget of kolkhoz families. This figure varies for individual regions of the country. For example, in Stavropol'skiy Kray, the data obtained from budgetary inspections reveals that the income realized from the LPKh constitutes 31 percent of the total income of a kolkhoz family, with 60 percent of all intake from the LPKh being derived from the sale of animal husbandry products (milk, meat, eggs).

It should also be borne in mind that physical work out on the private plots provides many individuals with great moral satisfaction. It exerts a very beneficial effect on youth and children, who from an early age become accustomed to performing physical labor in keeping with their capabilities and also acquire a thrifty attitude with regard to the surrounding natural environment.

Thus, today the private economy is an expedient form for combining public and private interests, as it performs vitally needed social-economic functions. Thus the program for developing the LPKh /private economy/ in a harmonious combination with the public economy is an important feature of the modern agrarian policies of the CPSU. During the 26th CPSU Congress, Comrade L.I. Brezhnev stated: "The foundation for our socialist agriculture has been and continues to be the kolkhozes and sovkhozes. But this is by no means meant to imply that we can neglect the potential of the private plots. Experience testifies to the fact that such plots can be of substantial assistance in the production of meat, milk and certain other products. The orchards, gardens, poultry and livestock that belong to workers constitute a portion of our overall wealth"<sup>8</sup>. In Article 13 of the USSR Constitution, it is written: "The state and the kolkhozes furnish assistance to citizens in the management of their private plots." The CC CPSU and the USSR Council of Ministers adopted the decrees entitled "The Private Plots of Kolkhoz Members, Workers, Employees and Other Citizens and Collective Horticulture and Gardening" (September 1977) and "Additional Measures for Increasing the Production of Agricultural Products on the Private Plots of Citizens" (January 1981). These decrees call for a number of specific measures for stimulating this form of production.

A number of organizational-economic problems arise in connection with the operation of private plots. First of all, it should be noted that the private economy, as a part of the agroindustrial complex, must be developed in a planned manner. Economic

stimulation and the creation of the conditions required for the planned and harmonious development of the LPKh, in the interests of society as a whole, must be implemented in a manner such that the LPKh produces mainly those types of agricultural products in which our society is most interested. Thus the importance of a particular product for satisfying the social requirements must be taken into account. Under modern conditions, this implies that special emphasis must be placed upon the production of animal husbandry products, mainly meat. In this regard the private economy has considerable reserves at its disposal for solving this task.

Today the LPKh is still not carrying out the functions assigned to it in an adequate manner, nor is it fully manifesting the secondary nature of its functioning. A typical feature in the development of this form of economy is the fact that it is engaged mainly in field crop husbandry. Within the LPKh, a loss is being tolerated in the prestige normally attached to animal husbandry operations. At the present time, not all of the peasants are maintaining poultry. Whereas earlier cows were a mandatory item of property in the rural areas, today by no means does every owner of a private plot maintain a cow. Thus, in Stavropol'skiy Kray, according to data obtained from budgetary studies, there are only 30 cows for every 100 kolkhoz farmyards and the range of fluctuations by rayons is quite great. In one group of rural rayons there were 17 cows for 25 families studied, in another -- 8 and in a third group -- 4. In rural rayons which adjoin the resort cities of the Caucasus Mineral'nyye Vody, there is only 1 cow for every 25 farmyards. The conditions for maintaining cows here are very favorable, but the residents of villages in the resort zone prefer to acquire their animal husbandry products from stores in Pyatigorsk, Yessentukov and Kislovodsk. The inadequate development of animal husbandry in the LPKh is leading to a situation in which the rural residents are failing to fully satisfy their own requirements for meat and dairy products. According to data obtained from budgetary studies, in 1978 53 kilograms of meat, 192 kilograms of milk and dairy products and 405 eggs were produced per capita on private plots in Stavropol'skiy Kray. At the same time, an average of 57 kilograms of meat and meat products (8 percent more than was produced) and 241 kilograms of milk and dairy products (21 percent more than was produced) were consumed per capita in the families of kolkhoz members. The difference between consumption and the amounts produced is covered by means of public farming and purchases in retail trade, as a rule in cities and settlements of the municipal type.

The development of the LPKh still lacks adequate planning; it is being subjected to a definite spontaneous influence, which is manifested in particular in excessive partiality for gardening. In some regions of the country, the private plots are used almost entirely for marketable vegetable production, which tends to dislodge cows, poultry and even such a necessary product as potatoes from the private plots. In order to obtain early vegetables, the gardeners intensify their private plots by building hothouses and acquiring powerful pumps and so forth. Instead of livestock, the pens are filled with fertilizers, herbicides, complicated technical implements and so forth.

The great amount of attention being given at the present time to developing the private plots is in our opinion attaching greater urgency to the problem of optimization of these plots. The limits and norms established by the state for the operation of the plots must be observed; this is of great economic, social and moral importance. An excessive expansion in the size of the private plots is fraught with serious negative consequences and conflicts between the interests of the individual worker and those of society.

It is known that the operation of private plots requires considerable expenditures of labor and time. For example, vegetable production involves extremely laborious and troublesome work. An increase in its proportion beyond the permissible limits tends to inhibit the combining of useful activity at the kolkhozes and sovkhozes with work performed on the private plots. At times, this leads to a situation wherein a definite portion of the able-bodied population abandons the sphere of public production and lives on the income obtained from the sale of products produced on the private plots. In such instances, the private plots forfeit their secondary character and their nature is distorted.

As yet, not all of the economic and organizational conditions required for the intensive, planned and harmonious development of the private economy, in the interest of satisfying the private and to a definite degree the public requirements, have been created. Difficulties are being encountered in organizing the mechanized cultivation of the private plots, in selling the products produced, in acquiring the necessary implements, feed and zooveterinary services for the domestic livestock and in addition the agronomic assistance for the private plots is only weakly developed. The decisions handed down during the 26th CPSU Congress and the decree of the CC CPSU and USSR Council of Ministers entitled "Additional Measures for Increasing the Production of Agricultural Products on the Private Plots of Citizens" are creating favorable conditions for the planned and harmonious development of this form of management. They must be employed so as to produce a maximum return in behalf of society as a whole.

It bears mentioning that the private economy possesses many reserves for increasing the production of agricultural products without disturbing the limits established for a given stage of development. One such reserve is that of increasing the number of rural residents having cattle, poultry and other livestock. It is known that the number of pensioners in the rural areas is increasing. Thought should be given to the methods available for making proper use of their free time and great production experience. The absolute majority of them can actively participate in some form of private plot operation. If certain conditions are created, a considerable proportion of the rural intelligentsia can also participate in the private economy. This portion of the population possesses well known advantages: the working day has been standardized and thus they have more free time. A rural teacher, a doctor at a district hospital, a bookkeeper or economist are able, without causing harm to their principal work activity, to devote several hours each day to performing work on private plots. In this manner they can not only obtain the necessary products, but also pleasure and delight from having engaged in physical labor and from having communed with nature.

The LPKh has many internal reserves at its disposal for increasing production. The chief one of these is that of increasing effectiveness by raising substantially the productivity of the animals and the cropping power of the household gardens. At the present time, the average milk yield per cow in the LPKh, for the country as a whole, is 450 liters less than that for public production. There are several reasons for this low animal productivity on the private plots: poor pedigree structure for the livestock and poultry, less full-value feed rations and poor feed balance in terms of protein. As a rule, low productivity strains, crops and fruit trees predominate on the household gardens. The plots are not adequately fertilized and only weak attempts are made at providing biological and chemical protection for the plants. As a result, society fails to receive considerable quantities of the required products. If improvements were carried out in the pedigree structure of the animals on private plots, it would be possible to obtain 1 million additional tons of milk from the present number of cows throughout the country as a whole.

An important reserve for increasing production is that of making more rational use of the available land. Several thousands of hectares of fertile land have been made available in our country for use by the LPKh and collective horticultural associations. However, there have been many instances of this land being allowed to remain unused, with no products being obtained from it. A persistent requirement is that of ensuring a more thrifty attitude towards an important element of the country's national wealth -- its land. The proper use of the land made available by society must not be viewed as a private affair. Instead, such work must be considered as being of national importance. The USSR Constitution contains the statement: "Citizens are obligated to make proper use of the land tracts placed at their disposal."

An important feature and one which describes the modern stage in the development of the LPKh is its close integration with public production.

The kolkhozes and sovkhoses are engaging in cooperation with the private economy more and more frequently. And this is quite justified. For example, many kolkhoz members in Voronezhskaya Oblast are contracting to fatten swine for the kolkhozes and sovkhoses. In Gor'kovskaya and Penzenskaya Oblasts, pensioners are maintaining sows which belong to kolkhozes. In many oblasts in the Ukraine, young large-horned cattle stock are being fattened based upon cooperative agreements. In Tatarbunarskiy Rayon in Odesskaya Oblast, the kolkhozes collaborate with private plots in the raising of geese. This specific form of collaboration is especially interesting in view of the fact that the breeding of geese is extremely limited on public farms. Examples of such cooperation between the kolkhozes and sovkhoses on the one hand and the LPKh on the other can also be drawn from other regions of the country. Such cooperation ensures the best merging of the economic interests of those participating in it. The kolkhozes and sovkhoses carry out all of the organizational work associated with ensuring that the private plots are supplied with feed, transport equipment and with zooveterinary services for the livestock, with the sale of the products and so forth.

In the Summary Report by the CC CPSU to the 26th party congress, Comrade L.I. Brezhnev noted: "Assistance must be furnished to the kolkhoz members and sovkhos workers in the form of young stock and feed. This applies to those who maintain livestock on a private ownership basis and also to those who are prepared to fatten livestock belonging to kolkhozes and sovkhoses. Such experience is available in a number of republics and oblasts and it warrants dissemination"<sup>9</sup>. A notable feature is the fact that the raising of livestock on the basis of agreements can be carried out over and above the established norms for livestock maintenance on a private ownership basis by the families of kolkhoz members, workers or employees. The products produced on such a basis are sold to the state by the kolkhozes and sovkhoses and they are included by them in the production volume and in fulfillment of the state plan for procuring agricultural products, with payment of the established bonuses for the high quality and quantity indicators. This signifies for all practical purposes that the above-normal number of livestock being maintained on the basis of an agreement on private plots and the products produced on the basis of this agreement exceed the limits of private ownership by a kolkhoz member, manual worker, employee or pensioner. In essence, this output is placed at the disposal of the kolkhoz or sovkhos, which in turn sells it to the state. This is a new and promising form for utilizing the potential offered by the LPKh, for achieving a more rapid solution for the food problem. It expands the economic

framework of the LPKh and it strengthens the unity of the public, collective and private interests. Here one cannot help but see evidence of the intensive process of raising the level of socialization of production and labor. Unfortunately, the process of integrating the public and private economies, as an important aspect of the work concerned with raising the level of socialization of agricultural production during this modern stage in the country's development, has not attracted the attention desired in economic literature. Meanwhile, it appears certain that this new phenomenon in the social-economic essence of the LPKh warrants thorough theoretical comprehension and generalization.

There is still one other problem that is of importance from a practical standpoint: the forms for administering the LPKh. They are not adequately developed for the country as a whole and there is no centralized coordination or regulation. Local initiative tends to predominate here and this does not always promote the development of the LPKh in the proper direction. A requirement evidently exists for developing organizational-administrative measures which will bring about improvements in the planned development and administration of the LPKh. We are of the opinion that appropriate subunits (using farms or on a voluntary basis) should be organized at kolkhozes, sovkhozes, soviets of people's deputies and agricultural administrations for controlling the operations of the private plots. The creation of inter-departmental committees concerned with the development of the LPKh at various levels is also possible. In connection with the changed objective circumstances and depending upon regional peculiarities, the legal status of the private plots of workers should be defined more precisely. A complex of economic, organizational and legal measures will ensure its harmonious development in the interests of society as a whole.

#### FOOTNOTES

1. See: "Kurs politicheskoy ekonomii" /Course in Political Economics/. In two volumes. 3d edition, revised and supplemented. Vol. II, Socialism. Edited by N.A. Tsagolov. Moscow, 1974, p 276.
2. Ibid, p 597
3. "Politicheskaya ekonomiya. Uchebnik dlya ekonomicheskikh vuzov i fakul'tetov" /Political Economics. Textbook for Economic VUZ's and Faculties/. Moscow, 1978, Vol. 2, p 75.
4. See: "Politicheskaya Ekonomiya" /Political Economics/. Dictionary, Moscow, 1979, p 183
5. "Politicheskaya ekonomiya. Uchebnik dlya ekonomicheskikh VUZ's i fakul'tetov, Vol. 2, p 80.
6. "Politicheskaya ekonomiya. Uchebnik dlya ekonomicheskikh VUZ's i fakul'tetov, Vol. 2, p 79.
7. See: "New Measures for the Development of the Private Economy," EKONOMICHESKIYE NAUKI /Economic Sciences/, 1981, No. 4, p 78.

8. Materials of the 26th CPSU Congress. Moscow, 1981, pp 47-48.

9. Materials of the 26th CPSU Congress. Moscow, 1981, p 48

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#### Conflict Suggested

Moscow EKONOMIKA SEL'SKOGO KHOZYAYSTVA in Russian No 3, Mar 82 pp 91-92

/Article by A. Rusakov, member of bureau of section of ILO for old bolsheviks:  
"Social Science and Private Economy Concerns"/

/Text/ In October 1981, in the city of Tallinn, an all-union scientific conference of social scientists was held on the subject "Development of the Social Structure of Soviet Society." More than 230 individuals participated in the work of the conference. Included among them were academicians, corresponding members of the country's academies of science and doctors and candidates of science. In particular, a great amount of attention was given to those problems concerned with family-group or private economic activity conducted outside the public economy. The purpose of such activity -- to satisfy the requirements of a family and its individual members and also to sell a portion of the agricultural products produced at the market.

In early 1981, the CC CPSU and the USSR Council of Ministers adopted the decree entitled "Additional Measures for Increasing the Production of Agricultural Products on the Private Plots of Citizens." This decree called for greater interest to be displayed by citizens in maintaining private plots and raising livestock and poultry. The creation of the conditions required by the rural residents for actively participating in public production and managing private plots will make it possible to increase considerably the production of food products and to obtain a better assortment of these products.

Each year the private sector furnishes millions of tons of potatoes, vegetables, meat and milk. However, the role played by the private plots is not valued very highly in a number of rayons. The rural residents are not always willing to acquire a private plot, since a great amount of manual labor is required and there is a shortage of horticultural and gardening implements as well as light mechanization equipment; the work of consumer cooperation has not as yet been properly organized, as evidenced by the fact that quite often it is unable to accept the products that become available. Many social problems having to do with the private plots are still awaiting further study. For the most part, these were the subjects which came under discussion during the conference.

It is known that the social processes are formed and develop in real life not only at the level of society on the whole, but also in various groups or communities that are smaller than classes. This serves to emphasize the importance of studies carried out on social structures and on relationships at the level of the various groups and communities (work collective, a family and other groups and associations of people). The disclosure of the principles underlying inter-actions within such collectives and their effect upon the behavior of individual members of collectives are required for utilization in the interest of the socialist society and the construction of communism.



Those groups which have a material base for certain types of their work conducted outside the public economy must be singled out from those associations of people which are smaller than classes. Such a requirement is explained by the fact that those means of production which can affect the development of social processes are found not only in the public economy but also beyond its scope -- at the level of a farm of a family or private individual.

The term farm of a family or private individual is understood to mean all types of family-group or individual economic activity carried out outside the public economy aimed at satisfying the requirements of a family and selling a portion of the products produced, at the discretion of the family or the private individual.

Although relationships in the private economy of a family are formed and develop in close association with the public economy, they nevertheless still have their own particular peculiarities: in the absence of state control, they can develop in a very contradictory manner, that is, not in the interest of society on the whole nor the private party.

The private plot of a rural family is a straightforward and useful undertaking for society even when operated in natural form. Even in this instance, the act of the family supplying individual food products plays a great social-economic role.

Family-group and private economic activity on a private plot or household farm, in the absence of assistance from the state in organizing, in particular, the marketing of the products produced, can turn out to be a type of unearned income, the social-economic nature of which does not conform to the socialist principles of distribution. For example, the private sale of products, by-passing the kolkhoz market and at sharply inflated prices.

Socialist society is capable of merging public production with the private economy and in a manner such that no harm will be inflicted upon either the private individual or society. But for effective control over this process, the potential of a family for employing the capabilities and labor of its members outside the public economy must be uncovered and evaluated in a timely manner. A requirement also exists for examining the conflicts which may arise between the private plot of a family and the public economy. These possible conflicts must be resolved with the assistance of the state organs of control.

The negative operational results of private plots were also discussed during the conference. Negative "economic activity" which produces income from the speculative resale or embezzlement of public property, false weighing and bribes also applies to the private plots of a family or private individual and to family-group and individual activity.

Such "activity is carried out in some instances using public means of production and official status and yet the essence of the work attaches an illegal nature to the private or family-group activity. It would be superfluous to state that such actions should be terminated in strict adherence to the laws and their social consequences eliminated. In order to terminate them successfully and combat the adverse social consequences (while relying heavily upon society), studies must be undertaken on the structure and relationships underlying such activities: studies of the mechanism by means of which they affect the formation of views; studies of



social consequences, including negative ones. But this requires the timely disclosure and evaluation of all conditions affecting the development of social processes in society, both at the public economy level and at the private economy level of a family or private individual.

Special importance is attached to taking into account those factors which describe the new phenomena, some of which could be negative in nature. This is needed in order to know in advance which factors can be relied upon for social control and which should be opposed in the interest of society, as well as the family or private individual.

"The elimination of inter-class differences will naturally confront social politics with new tasks. These politics should be concentrated more on overcoming those differences which transcend the individual classes and on solving those problems which require thorough consideration of the peculiarities and interests of each group of our society" stated the General Secretary of the CC CPSU, Comrade L.I. Brezhnev, during a report delivered before the 26th CPSU Congress (Materials of the 26th CPSU Congress, p 54).

During the conference, the greatest amount of interest was displayed in proposals for intensifying the study of social processes at the middle level -- the level of labor collectives, small groups, families and private individuals.

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## AGRO-ECONOMICS AND ORGANIZATION

### DECREE OUTLINES BELORUSSIAN FRUIT, VEGETABLE MINISTRY SYSTEM

Minsk SEL'SKAYA GAZETA in Russian 15 Apr 82 p 1

[Article entitled: "On the Complex Development of the Material-Technical Base and on Increasing the Economy of Associations, Enterprises and Organizations of the System of the BSSR Ministry of Fruit and Vegetable Industry"]

[Text] In the decree adopted on this question, the Central Committee of the Communist Party of Belorussia and the BSSR Council of Ministers charged the obkoms, gorkoms and raykoms of the Communist Party of Belorussia, the ispolkoms of the oblast, city and rayon Soviets of People's Deputies, and the ministries of the fruit and vegetable industry and agriculture of the BSSR, with the participation of other interested ministries and departments of the republic, to implement a complex of measures during 1982-1985 in regard to the accelerated development of the fruit and vegetable industry, an increase in the yield and gross harvest of vegetables, fruit, berries and potatoes, the reduction of losses and the securing of the preservation of this produce along the entire path of its movement to the consumer.

The BSSR Ministry of the Fruit and Vegetable Industry and the oblispolkoms will have to secure the organization of efficient and coordinated work of enterprises and organizations engaged in the raising, procurement, processing, transportation, preservation and sale of fruit and vegetable produce--which will serve to solve an important problem, viz., the satisfaction of the demands of the population for vegetables, fruit, berries and potatoes in fresh and processed form.

The specialized farms of the republic will have to bring the sale of potatoes to the state up to 1,167,000 tons by 1985, vegetables--337,000 tons, fruit and berries--186,000 tons. By this time it is planned to install intensive gardens and berry plantations, to carry out the reconstruction of inefficient plantations on an area of 5,800 hectares. The creation of 8 specialized sovkhozes and other agricultural enterprises is envisaged, which are calculated to raise up to 65,000 tons of vegetables on the basis of the industrial technology of cultivation.

In connection with this, the ministries of agriculture and of the fruit and vegetable industry of the BSSR and the Belorussian Scientific Research Institute for Potatoe and Fruit and Vegetable Growing have been charged with securing the creation of nurseries for the accelerated growing of initial select planting material of high-value varieties and stocks of fruit and berry cultures; the BSSR Ministry of the Fruit and Vegetable Industry--with the creation of nursery farms for the

accelerated growing of planting materials fruit, berry and flower and decorative cultures, one in each oblast with a capacity of 600,000 to 1,000,000 seedlings per year.

The Belorussian Republic Association for the Production, Procurement and Sale of High-Quality Seeds of Vegetables, Melons and of Fodder Root Crops [Belsortsemovoshch] must by 1985 bring the procurement of seeds of vegetable crops up to 346.5 tons. The BSSR Gosplan has to provide for the volumes of procurement of seeds of the indicated crops in the annual plans.

It has been recommended to Belsortsemovoshch to improve its work regarding the supply of the specialized vegetable-growing sovkhozes, other agricultural enterprises, and kolkhozes, as well as the population with high-yield zoned and perspective varieties of vegetable cultures, giving special attention to the increase in the production of seeds for cabbage, carrots, red beets, cucumbers, green peas, and onion seeds.

The BSSR Ministries of Land Reclamation and Water Resources and the Fruit and Vegetable Industry, Glavpoleyevodstroy [Main Administration for Land Drainage and Construction of State Farms in the Belorussian Woodlands] and the oblispolkoms have been charged with putting into operation during 1981-1985 in the state farms of the system of the BSSR Ministry of the Food and Vegetable Industry irrigated land under vegetable crops, gardens, berry plantations and nurseries covering an area of 11,122 hectares. In addition, the BSSR Ministry of Land Reclamation and Water Resources must continue the construction of the first phase of the specialized complex for growing vegetables (for the city of Minsk) "Volma" with a capacity of 70,000 tons of production per year.

The BSSR Ministries of the Fruit and Vegetable Industry, of Rural Construction and of Industrial Construction, Belmezhkolkhozstroy [Belorussian Interkolkhoz Construction Organization] and the oblispolkoms must secure during 1981-1985 in specialized farms the construction of hothouse combines covering 47.2 hectares, 190 hectares of pellicle hothouses, a mushroom complex covering 1 hectare, fruit storage facilities with a capacity of 8,000 tons, vegetable and potatoe storage facilities for 18,700 tons, and refrigeration storage with a capacity of 1,400 tons of simultaneous storage.

The BSSR Ministry of the Fruit and Vegetable Industry must secure the production of fruit and vegetable canned products in the enterprises under its jurisdiction totaling 322.1 million conventional cans by 1985; the introduction during 1982-1985--by virtue of reconstruction and technical reequipping of existing enterprises--of production capacities for the processing of fruit and vegetables totaling 5 million conventional cans; and the maximum use of fruit and vegetable raw material on the basis of the development and introduction of wasteless production technology in the canning enterprises.

The BSSR Ministries of the Fruit and Vegetable Industry and of Rural Construction and the Gomel' Oblispolkom must by 1985 secure the reconstruction of the Khoynikskiy Canning Factory and the construction of a plant for children's food with production capacities for the manufacture of fruit and vegetable canned products totaling 25 million conventional cans a year.

The decree envisages the realization during the years 1982-1987 of the construction of a plant for the production of non-standardized equipment and the manufacture of spare parts for 3 million rubles a year, the reconstruction of the Vileyskaya Machinery and Repair Shop with the introduction of a capacity for 2 million rubles of production a year, as well as the construction of a plant for the mechanized production of boxes with a capacity of 6 million units a year.

The oblispolkoms, the Minsk Gorispolkom and the BSSR Ministry of the Fruit and Vegetable Industry have been charged with securing a significant improvement in the trade of fruit and vegetable produce and potatoes, and with the realization during 1982-1985 of the growth of trading areas for specialized stores selling fruit and vegetable produce in the system of the BSSR Ministry of the Fruit and Vegetable Industry to the extent of 3,000 square meters through their construction at the expense of 5-percent deductions from the capital investments for housing construction as well as by virtue of the transfer of existing stores of other departments. To expand the sale of fruit and vegetable produce and potatoes to the population during the period of their mass procurement by virtue of the organization of trade at kolkhoz markets, in pavillions and in seasonal markets.

The BSSR Goskomsel'khoztekhnika [State Committee for the Supply of Production Equipment for Agriculture] must, beginning in 1982, organize, upon application by the BSSR Ministry of the Fruit and Vegetable Industry, the full delivery of equipment for the watering in pellicle hothouses and the spare parts for it to the enterprises and organizations of the system of this ministry; carry out the acquisition, using established procedure, of the equipment, accessories, instruments, automation and communication facilities, cable and other products and materials for all enterprises being constructed, reconstructed and expanded for the processing and storage of fruit and vegetable produce, hothouse combines, procurement and receiving centers, bases and other production projects of the system of the BSSR Ministry of the Fruit and Vegetable Industry (with the exception of the projects being completed by Soyuzglavpishchekomplekt [Main Administration for Food Industry, Meat and Dairy Industry] attached to the USSR Gossnab [State Committee for Material and Technical Supply] in accordance with the manufacturing instructions being presented by the buyers.

The administration of the Belorussian railway must provide the timely feeding of railway cars loaded with fruit and vegetable produce in accordance with the plan and also in accordance with requests from shippers which are submitted 5 days prior to the beginning of the loading.

Proposals have been adopted concerning the necessity of the creation, in the system of the Ministry of the Fruit and Vegetable Industry, a republic production association for transportation, packaging, and production-technical completion, with a network of specialized motor vehicle transport enterprises, package-repair plants and sections of production-technical completion on cost accounting.

Plans call for the construction of a motor vehicle transportation enterprise in the city of Minsk for 250 motor vehicles for intercity transports of perishable fruit and vegetable produce by means of large-load road trains.

The BSSR Ministry of Trade must secure the apportionment of trade and technological equipment and inventory to the BSSR Ministry of the Fruit and Vegetable Industry in accordance with the established products list and taking the requisitions and demands it into account.

Recommendations have been made to the BSSR Gosplan and to Goskomsel'khoztekhnika of the BSSR to examine the proposals of the BSSR Ministry of the Fruit and Vegetable Industry concerning the manufacture--in industrial enterprises of the republic--of equipment and some units for machines for the cultivation and cleaning of vegetables and the processing of fruit and vegetable produce.

A proposal by the Central Committee of the Lenin Young Communist League of Belorussia has been adopted concerning the dispatching of student detachments for the construction of enterprises for the processing of agricultural produce and the cleaning of the harvest of agricultural crops during the 11th Five-Year-Plan.

The obkoms, gorkoms, and raykoms of the Communist Party of Belorussia, the ispolkoms of oblast, city and rayon Soviets of People's Deputies are obligated to set into motion constant control over the fulfillment of the established tasks, to extend assistance to the enterprises and organizations of the fruit and vegetable industry in the matter of developing the material-technical base, increasing the efficiency of production-procurement and trade activity, reducing the losses by all conceivable means and, on this basis, satisfying more fully the demands of the population for the production of the industry.

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ALTAYSKIY KRAY FOOD PROCUREMENT FROM PRIVATE PLOTS

Moscow ZAKUPKI SEL'SKOKHOZYAYSTVENNYKH PRODUKTOV in Russian No 3, Mar 82 pp 32-33

[Article by B. Basheyev, candidate of legal sciences: "The Helpers of Procurement Organizations"]

[Text] State purchases in the individual sector are very labor-intensive because it is necessary to take in the largest possible number of territorially spread-out small peasant households, conclude thousands of contracts with them, receive many batches of agricultural output from the sellers, and deliver them to the enterprises and storage areas of procurement organizations.

Altayskiy Kray is one of the largest agriculture regions in the country. It has 416,000 rural households. In 1981 a survey was made of 415,000 households and contracts for state purchase of excess agricultural output were concluded with 98,765 households. A single procurement apparatus, no matter how large it might be, could not manage this difficult job without calling on active assistance from other organizations.

The rural Soviet occupies a special place among the organizations that help procurement workers with state purchases of agricultural output from the population. As an agency of state power the Soviet carries out organizational and monitoring functions, and also gives practical help in procurement of output and delivering it to receiving points in processing enterprises.

The rayon executive committee imposes on the rural Soviets the obligation of helping procurement workers fulfill assignments for state purchases of excess agricultural output from the population within the territory of the particular Soviet. The executive committees of the rural Soviets are closely linked to the population, know the potential of each farm well, and together with the deputies are able to create conditions for optimal use of the commodity output of the private farms.

Success in this work depends above all on the employees who are directly engaged in state purchases from the citizens, on their qualifications, skill, initiative, and work capability. The executive committee of the rural Soviets participates in selection of procurement workers and milk collection workers. From local inhabitants with good business qualities. Meetings are held at enterprises and in organizations, and in certain towns assemblies of inhabitants

are called at which the importance of selling excess agricultural output to the state and the conditions of sale are explained. Certain citizens take on the obligation of turning over a certain amount of output to the procurement organizations. This officially given promise is not supported by sanctions and does not have a legal foundation; it is a moral obligation which is upheld by the strength of public opinion.

This is precisely how state purchases of milk are made among the inhabitants of Pavlovskiy Rayon of Altayskiy Kray. The rural Soviets there compete among themselves to organize this important activity best. The Kiprinskiy and Novoobintsevskiy rural Soviets are the leaders in competition. In these areas more than 500 kilograms of milk is sold to the state from each cow belonging to citizens. It is not accidental that Pavlovskiy Rayon leads the kray in state purchases of milk. It buys more milk from the population than all of Gorno-Altayskaya Autonomous Oblast, which is included within the kray.

The executive committees of the rural Soviets publish an appeal to the citizens to sell excess milk to the state. Deputies periodically visit their election districts and take part in walking tours of the households, counting the privately owned livestock and identifying excess agricultural output which could be sold to procurement organizations. Some rural Soviets have set up commissions for assistance in rational management of private farms. These commissions take over problems which are difficult for the manager of the collective sector to handle alone.

State purchases of milk are most labor-intensive. This work is carried on for an extended time and requires participation by many people to insure uninterrupted delivery of output from the individual farms to the receiving points. Therefore this work requires help from the kolkhozes and sovkhoses. In 1981 the plan for the kray contemplated buying 35,000 tons of milk from private farms. Of this amount 12,000 tons came directly from citizens to milk industry enterprises and 23,000 tons was received by kolkhozes and sovkhoses from sellers who brought it to receiving points.

The decree of the CPSU Central Committee and USSR Council of Ministers entitled "Additional Steps To Increase the Production of Agricultural Output on the Private Plots of Citizens" increased the incentive for kolkhoz and sovkhoses managers and specialists to buy from individual sellers because milk bought from citizens and passing through the farm is counted in its fulfillment of the state plan for sale of agricultural output with payment of established supplements for quality and quantity indicators.

The kolkhozes and sovkhoses also help procurement organizations by buying wool from the population on commission and settling accounts with sellers. These relationships are formalized by contracts which envision the obligations of the kolkhoz or sovkhoses to receive wool from the citizens, deliver it to the procurement organizations, and settle the accounts. The procurement organization is obligated to create the necessary conditions for the farm to fulfill its contract obligations and to receive and pay for wool that is delivered.



Some procurement organizations without effective help from outside could not handle state purchases from all the hunters who work in remote regions and the vast tayga. Societies of hunters perform an important service for consumer cooperative organizations by receiving fur from their members and delivering it to an agent in conformity with the conditions of a contract. For this the society of hunters is paid five percent of the value of the fur. It is true that this amount of payment for services by societies of hunters to organize state purchases of fur usually does not cover their expenses for this work and does not give specialists at hunting organizations incentive to develop fur collection in their areas. For this reason it would be wise to make broader use of agent contracts whose conditions allow societies of hunters to send the fur purchased directly to a fur depot as part of the consumer cooperative plan and to receive a mark-up of 25 percent above the state's purchase price of the raw material that is sent.

When organizing state purchases of the skins of rabbits and caged animals, as well as wild fruit and cultivated fruit and berries, procurement organizations conclude similar assistance contracts with societies of persons who raise rabbits and other animals, councils of pensioners, schools, and the boards of directors of garden societies.

These contracts establish a broad range of duties which must be performed by each side. The principal obligation of the rayon society of persons who raise rabbits and other animals, for example, is to insure that members of the society turn over their rabbits and other animals to the procurement office during the year and do not sell them to other procurement organizations or private individuals.

But the procurement organization in this case is not simply the recipient of obligations; it itself must provide the help necessary to the agent to carry out the obligations imposed by the contract.

The model contract of assistance in the capture and sale of fur animals to the state envisions civil liability in the form of a penalty for failure to perform contract obligations or improper performance. Other similar documents do not have statements about civil liability, which of course makes them less effective.

The model contract between a consumer cooperative organization and a school, children's home, or pioneer organization for collecting and selling wild fruits, berries, mushrooms, and medicinal-industrial raw material provides that the procurement agency must sell sporting goods, books, sets of metalworking and carpentry tools, musical instruments, and other cultural goods to the gatherers for the amounts due for the output sold.

Refining these contracts and making them more effective is becoming very important.

Planned work is underway in the kray to give young families greater incentive to develop their private plots. Useful experience has been accumulated in the Rebrikhinskiy Rayon Komsomol organization in particular. They attach great importance to continued development of private plots among rural young people.

Representatives of the Komsomol kray committee took part in a meeting of managers and specialists of kray administrations and departments which discussed the experience of Odesskaya Oblast with raising livestock and poultry on private plots and the possibility of using it in the conditions of Altayskiy Kray.

A joint decree of the bureau of the Komsomol kray committee, the board of directors of the division of public education, the administration of agriculture, and the administration of the kray union of consumer societies entitled "Attracting Komsomol Organizations, Other Working Young People, Pioneers, and School Children in the Development of Rabbit Farming on a Large Scale" was adopted. Implementation of the decree is being monitored on a daily basis. Rabbit farms have been set up at schools in Rebrikhinskiy, Tal'menskiy, and Kur'inskiy rayons. Construction of farms has begun at schools in other rayons.

School children and pioneers take part in gathering wild fruit, berries, and mushrooms and sell them to procurement organizations. But we should note that this useful practice still has not become widespread. Active participation by young people, Komsomol members, Pioneers, and school children in the production, collection, and sale of agricultural and other output to procurement organizations is not being supported.

Consumer cooperative organizations do the bulk of the work for state purchases of meat and potatoes from the population. The number of all types of livestock owned by rural inhabitants of the kray has increased. The herds of cattle, hogs, sheep, and goats increased in the last five-year plan. It should be observed that as recently as 1976 and 1977 the number of livestock in the individual sector declined. Only after publication of the CPSU Central Committee and USSR Council of Ministers' decree on necessary steps by local party and Soviet agencies was an improvement seen.

But the existing resources of the private plots are not being adequately used for public needs. During the 10th Five-Year Plan state purchases of meat from the population accounted for 3.8 percent of the total volume of state purchases in the kray, while for milk the figure was 1.7 percent, for eggs 5.7 percent, and for wool 3.8 percent. On 28 November 1980 the newspaper PRAVDA pointed out that the population of Altayskiy Kray has almost twice as many livestock as the population of Stavropol'skiy Kray, but state purchases of meat from the Siberians are one-third lower.

The reasons for this are both organizational flaws and the inadequate material-technical base. In the fall of 1980, for example, citizens in many towns of the kray were not able to turn livestock in to procurement organizations. The procurement workers refused to accept the animals, saying that they had no transportation.

The individual sector accounts for about 80 percent of all area planted to potatoes in the kray. This means that the private plots are the main producer of this food product in the Altay. But difficulties are occurring with the marketing of potatoes, and some who want to sell their products to procurement organizations are unable to do so.

The first reason for unsatisfactory use of the resources of private farms for public needs is the poor material-technical base of the procurement sector. The second reason is the small work force of the procurement system. During the last five-year plan each procurement worker served an average territory of two rural Soviets. This is about 1,070 households, whereas the norm is 250-300.

This means that the procurement workers need real help from interested organizations in order to carry out their difficult duties of purchasing excess agricultural products from the rural population.

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## AGRICULTURAL MACHINERY AND EQUIPMENT

### HIGH PRODUCTION TECHNOLOGY FOR LIVESTOCK SECTOR CALLED FOR

Moscow EKONOMICHESKAYA GAZETA in Russian No 15, Apr 82 p 2

[Interview with K. N. Belyak, minister of machine building for animal husbandry and fodder production: "More Highly Productive Technical Equipment for Animal Husbandry"]

[Text] [Question] Tell us, Konstantin Nikitovich, how is the work going for the fulfillment of the plan of the Eleventh Five-Year Plan at enterprises of the Ministry of Machine Building for Animal Husbandry and Fodder Production?

[Answer] When congratulating the workers of the branch on their early completion of the assignments of the Tenth Five-Year Plan, Comrade L. I. Brezhnev pointed out that in the future they would be faced with large tasks for increasing the output of highly productive technical equipment for animal husbandry. We are called upon to produce the necessary quantity of machines for procuring feeds and preparing them, and also for mechanizing animal husbandry complexes and farms.

The deliveries of this technical equipment are increasing. But the orders of the kolkhozes and sovkhoses for individual machines are still not being fully satisfied. This pertains particularly to self-propelled feed harvesting combines, haystack movers and stack forming machines, feed crushers, sets of equipment for feed shops, milk cooling tanks and other machines and mechanisms.

The socialist competition which has developed in the branch since the first months of the Eleventh Five-Year Plan is producing its results. In 1981 the production volume had increased by 11 percent as compared to 1980. Labor productivity increased by 8.5 percent. The assignment for reducing expenditures on the manufacture of products was overfulfilled and an additional 3.3 million rubles were saved. I should especially like to take note of the achievements of the collectives of Gomsel'mash and Kurgansel'mash associations and the Rovnosel'mash plant which were awarded the Challenge Banners of the CPSU Central Committee, the USSR Council of Ministers, the AUCCTU and the Komsomol Central Committee.

I must say that even now, in the second year of the five-year plan, they are continuing to work like shock workers and are leading the competition for a worthy greeting to the 60th anniversary of the Soviet Union. The majority of enterprises of the Ministry of Machine Building for Animal Husbandry and Fodder Production are

striving to give agriculture machines and spare parts for successful wintering of livestock and conducting spring field work in 1982.

During the first quarter of this year the ministry fulfilled the planned assignment for production volume, product sales, labor productivity, profit and new technical equipment. The increase according to the indicator of normative net output amounted to 9 percent. By the same period of last year the collectives of Gomsel'mash had produced 44 percent more self-propelled feed harvesting combines than during the first quarter of last year, the Aktyubinsk'sel'mash had produced 85 percent more mobile distributors and feed mixers, and the Kovel'sel'mash plant had produced 24 percent more transporters with round-linked chains for cleaning animal husbandry premises. The increased production of these and also a number of other machines was achieved mainly because of the assimilation of newly introduced capacities and their better utilization as well as the introduction of progressive technological processes.

But the results of our branch's economic activity could have been better. Certain enterprises still have shortcomings in production organization and material and technical supplies. The Pyatigorsk'sel'mash plant began to "limp" recently and is not fulfilling the plan for a number of kinds of products. Other plants also lagged behind for various reasons: Belotserkovskiy imeni Pervogo maya (Kiev Oblast), Chelno-Vershinskiy (Kuybyshevskaya Oblast) and Sasovskiy (Ryazanskaya Oblast).

[Question] In 1981 the branch changed over to planning and evaluating activity according to the indicator of normative net output. What does the experience that has been accumulated show?

[Answer] The first year of operation according to the NChP [normative net output] confirmed that the new indicator reflects more fully and precisely the labor contribution of the collectives of enterprises to increasing the volume of production of products, excludes double accounting in the production of semimanufactured products and prepared items that are obtained under cooperation, and also materials. It is noteworthy that now the plants themselves have begun to raise before the ministry the question of abolishing inefficient intrabranh and interbranch cooperation.

I shall give a typical example. Workers of the Sal'sksel'mash recognized the existing cooperation in the production of high pressure hoses was unsuccessful. Previously 400,000 of these items were shipped in from the Belotserkovskiy to Sal'sk, and after complete assembly and testing they were sent back. Now the Sal'sk machine builders have suggested sending only the necessary parts and letting the final assembly of the hose be done at the Belotserkovskiy plant. A worthwhile and economically expedient change. But previously, when evaluated according to "points" it was "advantageous" to include in the volume of products produced hoses for other enterprises. With the changeover to the NChP this "advantage" has disappeared.

I should emphasize that the new indicator has been recognized in the system of intraplant planning. At the majority of enterprises the work of the shops and sections is evaluated according to the normative net output.

Certain economists have expressed fears that the NChP will motivate enterprises to increase labor expenditures in the production of products. What can one say about this? In the first place, one must take into account that the net output normatives that are established and introduced are stable and they are submitted along with the wholesale prices. In the second place, an increase in labor expenditures for new machines is prevented by strict checking of accounting materials that are sent by the enterprises for the establishment of the NChP and wholesale prices. The Ministry of Machine Building for Animal Husbandry and Fodder Production also follows this rule. For example, the labor expenditures and drafts of net output normatives that were submitted by the plants for sets of equipment for poultry raising (BKN-3), after checking, were reduced by 12 percent and for the KPKU-75 mixed feed combine they were reduced by 19 percent.

Our main concern is that each enterprise fulfill all planned assignments and indicators. To this end, further work is being done to improve the economic mechanism.

[Question] . . . including for the delivery of products precisely in keeping with contractual commitments?

[Answer] Yes, this is the most important thing. I will not talk about how important it is not only to fulfill the plan for the production of products, but also to deliver them to the consumers promptly. Last year the ministry fulfilled the assignment for product sales, taking into account commitments for deliveries, by 97 percent. The clients failed to receive 63 million rubles' worth of products within the agreed-upon time periods. True, as compared to preceding years there was a certain improvement (1979--94.4 percent, 1980--95.6 percent)..

But we cannot be satisfied with what we have achieved. If we completely and promptly, as stipulated in the economic agreements, dealt with the Brestsel'mash, Amursel'mash, Liyepayasel'mash and others, we were indebted to the Orelsel'mash, Buryatfermmash, Mankentzhivmash and certain others. Incomplete observance of contractual commitments is the result of incomplete development on the part of the ministry and violations of planning discipline at the enterprises. At the same time associated plants that provide our plants with rolled metal and batching items sometimes let us down. There are cases of interruptions in the supply of railroad cars for shipping machines and equipment.

The ministry is concerned about expanding the group of enterprises that are changed over to guaranteed comprehensive supply (62 plants). There are also more deliveries of metal products and batching items on the basis of direct long-term economic ties. We have arranged constant control over prompt delivery of railroad cars for loading, and also reduction of their idle time on the sidings.

[Question] At the November (1981) Plenum of the CPSU Central Committee agricultural machine building workers were reminded of the need to raise the technical level and increase the reliability and durability of machines. What is the Ministry of Machine Building for Animal Husbandry and Fodder Production doing about this?

[Answer] Practical conclusions are being drawn from the criticism at the Plenum of the CPSU Central Committee. Our branch delivers more than 400 various kinds of

machines and technological equipment. We must accelerate the development of production of the new generation of technical equipment in order to change animal husbandry over to a modern industrial basis and improve the quality of machines.

Now 37 percent of the overall volume of machines for procuring and preparing feeds have the State Emblem of Quality. But it is necessary to work harder on increasing the service life, improving the design, and reducing the labor-intensiveness of technical servicing of machines on the kolkhozes and sovkhozes.

To these ends we have developed a comprehensive program for raising the technical level and improving the quality of machines under the Eleventh Five-Year Plan. For its preparation we enlisted all enterprises and organizations of our branch and also associated ministries that supply materials and batching items as well as representatives of the USSR Ministry of Agriculture and the USSR Goskomsel'khoztekhnika.

In the first half of March this program was considered in detail at a special scientific and technical conference held by the ministry in Vilnius. Essential shortcomings were revealed and concrete measures were earmarked for improving the quality, taking the future into account. In 1981-1985 it is planned to design and assimilate the production of more than 250 new and modernized machines (under the Tenth Five-Year Plan 200 machines were developed and delivered to production). It is intended to increase the proportion of products of the highest quality category to 40 percent.

Our duty is not only to accurately fulfill all orders from agriculture, but also to deliver machines and equipment in sets. While in 1981 sets of nine kinds of equipment were delivered, this year we shall deliver 26 kinds and by the end of the five-year plan--35 kinds.

But this is still not all. The enterprises and design organizations have been called upon to increase the so-called assembly readiness of sets of equipment and machines. The matter consists in significantly reducing expenditures on the assembly of these sets of equipment in agriculture, simultaneously improving the quality of their assembly and reducing the time periods for putting the equipment into operation.

[Question] Machine building for animal husbandry is a large consumer of metal. What is the ministry doing for more efficient utilization of rolled metal and other material resources?

[Answer] I shall give the following figures. Last year the norms for the expenditure of rolled metal were reduced by 4 percent or by 58,000 tons in the branch as a whole. We fulfilled the established assignment. But we cannot be complacent. It is necessary to further step up the struggle for economy. It is necessary, as a specific comprehensive special-purpose program, to expand the application of metal-saving technological processes, including the production of stamping from rolled steel 6-fold, and twice the amount by the method of stamping without layout patterns directly from the sheet.



Sprockets for chain transmissions are produced in mass quantities at plants of the Ministry of Machine Building for Animal Husbandry and Fodder Production. Because of the assimilation of hot knurling last year we saved more than 1,200 tons of metal in the production of about 1.5 million sprockets. And the new technology was only introduced at some of the plants.

It is advantageous to obtain light bent profiles by the method of rolling strips on profile bending machine tools. There are already 34 of these machine tools in operation at our enterprises now. Last year 38,000 tons of light profiles were used for manufacturing them.

Last year the design organizations developed and submitted to the plants technical specifications that provide for reducing the weight of 84 kinds of machines and equipment. It was calculated that the annual savings on this will amount to almost 30,000 tons of metal. But in order to obtain such a result it is necessary for production brigades, technologists, masters, economists and all the plant services to work energetically in 1982.

There are many reserves for saving. It is necessary to utilize them better.

[Question] The development of the branch involves the construction of new plants and the expansion and reconstruction of existing ones. How are the assignments for the startup of new capacities being carried out?

[Answer] It is appropriate to recall that machine building for animal husbandry and fodder production was created at the end of 1973 on the basis of enterprises that had been transferred from the system of Goskomsel'khoztekhnika and a number of branches of industry. The majority of the enterprises did not meet the requirements for the production of highly productive technical equipment on a modern level.

In recent years the branch's fixed capital has increased 3-fold and production capacities and areas have doubled. Because of the concern of the party and government, through the efforts of construction and production workers, under the Tenth Five-Year Plan a large program was carried out for the construction of new plants and the reconstruction and technical rearmament of existing ones.

Under the Eleventh Five-Year Plan measures will be taken to accelerate the construction of agricultural machine building enterprises. The construction projects of our branch have been recognized as construction projects of special state importance. During 1981-1985 it will be necessary to put 1,596,000 rubles' worth of fixed capital into operation. In addition to production facilities it is planned to introduce residential buildings with an overall area of more than 1.5 million square meters and childrens' preschool institutions to accomodate 10,000.

Last year the volume of capital investments amounted to 278.5 million rubles, with an increase of 22 percent as compared to 1980. Significant new capacities were introduced at the Gomsel'mash, Syrzan'sel'mash, Kovel'sel'mash plants and a number of other enterprises.

But still the annual plan for construction and assembly work at facilities of our branch were fulfilled by general contracting organizations of the USSR Ministry of Construction by only 79 percent, the USSR Ministry of Heavy and Transport Machine Building--by 90 percent, and the USSR Ministry of Power and Electrification--by 68 percent.

A difficult but realistic plan for capital construction has been set for this year. We have now developed practical measures that will provide for the startup of all capacities and facilities.

At the festive meeting in Tashkent on 24 March, Comrade L. I. Brezhnev said that the comprehensive food program is being developed and refined. In this connection workers of machine building for animal husbandry, like workers of other branches of industry, must handle the essential matters facing them more energetically and increase their contribution to the food program.

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## TILLING AND CROPPING TECHNOLOGY

### SEMINAR ON HARVEST PROGRAMMING HELD IN MOLDAVIA

Kishinev SOVETSKAYA MOLDAVIYA in Russian 19 Mar 82 p 3

/Article: "Harvest Management"/

/Text/ The experience in the programming of harvests of agricultural crops accumulated in the republic was discussed at a republic seminar held in Bel'tsy on 18 March.

The report by M. F. Lupashku, Moldavian SSR minister of agriculture, and speeches by participants in the seminar noted that harvest programming was the most important trend in the sectorial science marking the transition to a qualitatively new stage in the management of agricultural production. It is of an overall nature, because modern achievements of plant growing, farming, soil management, agrochemistry, agrophysics, physiology, meteorology, mathematics and economics are utilized. Programming is based on the optimization of factors ensuring the maximum productivity of the cultivated crop under specific soil and climatic conditions.

The use of this method made it possible to increase the harvest of the pioneer-3978 corn hybrid to 116 quintals per hectare, of the green mass of lucerne, to 850 quintals per hectare and of fodder sugar beets, to 2,000 quintals per hectare in experiments last year. These examples show the powerful reserves that can be activated through the mastery of the science of harvest management.

It was stressed at the seminar that the cultivation of programmed harvests and industrial technology had many things in common. In essence, the cultivation of agricultural crops without the application of manual labor is the first important stage in programming, which requires even stricter technological discipline and tolerates no deviations from it. Last year, however, the industrial technology of corn cultivation was used formally on many farms. Sowing was carried out on poorly prepared soil, owing to which the effectiveness of herbicides was lowered sharply, and seeds were placed in parched and overpacked soil, which led to the thinness of crops. The drought that followed aggravated the consequences of the violation of agrotechnology.

It was stated at the seminar that, in order to prevent such miscalculations, programmed harvests should be cultivated on the basis of realistic possibilities. It is necessary to select highly skilled cadres of machine operators and specialists

who will cultivate harvests according to a preset program. The form of labor organization and wages and the system of machines and implements should be determined for them and incentive measures for the attainment of the planned indicators should be developed. In the republic this year there is every possibility of expanding such crops and of obtaining programmed harvests on a specific area on every farm in the republic.

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METHOD OF FORECASTING LONG-TERM YIELD DEVELOPED

Kishinev SEL'SKOYE KHOZYAYSTVO MOLDAVII in Russian No 2, Feb 82 pp 20-21

/Article by T. Platonova, senior scientific worker at the sector of economic cybernetics of the Scientific Research Institute of Economics and Organization of Agricultural Production of the Moldavian SSR Ministry of Agriculture, candidate of economic sciences: "How To Forecast the Yield"

/Text Forecasting the long-term yield on the basis of the data of state strain testing plots and the achievements of advanced farms is one of the possibilities of improving the existing methods of its calculation.

It has been established that the annual fluctuation in the yield on state strain testing plots and under production conditions occurs synchronously.

In 1973 the All-Union Scientific Research and Planning-Technological Institute of Cybernetics of the USSR Ministry of Agriculture jointly with the USSR State Planning Committee developed a method of performing a comparative analysis of the yield dynamics under production conditions with the data of the state strain testing network. We made an attempt to perform this kind of analysis.

In the article "Forecasting the Yield" published in the journal SEL'SKOYE KHOZYAYSTVO MOLDAVII, No 9, 1978 we presented parameters of yield trends for a number of crops on some state strain testing plots and farms. These were the Bel'tskiy Strain Testing Plot on the Kolkhoz imeni Michurin in Faleshtskiy Rayon, the Chadyr-Lungskiy Strain Testing Plot on the Iskra Kolkhoz in Chadyr-Lungskiy Rayon and the Rybnitskiy Strain Testing Plot on the Kolkhoz imeni Kirov in Rybnitskiy Rayon. On the leveled rows it is clearly seen that the difference in the yield between state strain testing plots and farms remains relatively constant. Below we present trend parameters for the republic as a whole and, on the average, throughout state strain testing plots (see table 1).

Knowledge of parameters of regression equations makes it possible to numerically determine the interval at which the yield already obtained on a state strain testing plot will be attained under production conditions. If to proceed from the method developed by the All-Union Scientific Research and Planning Technological Institute of Cybernetics of the USSR Ministry of Agriculture, the following formula is used for this:

$$t_{v_1} = \frac{a_1 + b_1 - a_2}{b_1}$$

$t_1$  is the number of years in which the same yield as on the state strain testing plot at the beginning of the analyzed dynamics will be obtained under production conditions;  $a_1$ ,  $a_2$  are the free terms of both trends;  $b_1$  is the average annual absolute increase in the yield on sown production areas;  $b_2$  is the average annual increase in the yield on a strain testing plot.

Table 1

Crops	State strain testing plot		Farm	
	trend	correlation coefficient	trend	correlation coefficient
Grain and pulse crops	$Y = 17.45 + 1.04t$	0.84	$Y = 11.4 + 0.97t$	0.89
Corn for grain	$Y = 26.66 + 1.42t$	0.80	$Y = 14.8 + 1.12t$	0.82
Sunflower seeds	$Y = 14.80 + 0.42t$	0.68	$Y = 12.54 + 0.24t$	0.64
Sugar beets	$Y = 262.17 + 8.59t$	0.68	$Y = 147.14 + 6.32t$	0.73

It is also possible to determine the lag existing between the yield levels for the last year of the analyzed dynamics.

$$t_1 = n - \frac{\hat{y}_n - a_1}{b_1}$$

$t_2$  is the number of years of lag of the yield level on farms during the last year of the analyzed dynamics behind the level of the state strain testing plot;  $n$  is the length of the analyzed period;  $\hat{y}_n$  is the calculated yield level on farms during the last year of the analyzed dynamics;  $a_2$  is the free term of the trend for the state strain testing plot;  $b_2$  is the average annual increase in the yield on a state strain testing plot. We performed numerical calculations by the above-mentioned method. Such are the results of calculation of the yield of grain and pulse crops.

$$t_1 = \frac{17.45 + 1.04 - 11.4}{0.97} = \frac{7.09}{0.97} \approx 7$$

$$t_2 = 20 - \frac{30.8 - 17.45}{1.04} \approx 7$$

Thus, on the average, the interval of the lag of the yield of grain crops under production conditions behind the achievement of state strain testing plots is 7 years.

The long-term yield can also be determined according to its level attained by various groups of advanced farms in the republic, which can be obtained by the method of average progressive standards. The essence of this method is as follows: At first the weighted mean yield is calculated for the entire set. Then the selected set is divided into two groups. Farms on which the yield  $y$  is lower than  $\bar{y}$  (weighted mean) are included in group I and farms where  $y$  is higher than  $\bar{y}$ , in group II. The average yield level is calculated for every newly obtained set of farms and on its basis the group is again divided into two. This process can continue until groups of various sizes are singled out. In contrast to previous methods average progressive standards capture the effect of the entire diversity of factors forming one yield level or another.

This is how the average progressive standards of the yield of winter wheat, corn for grain and sugar beets on the republic's kolkhozes in 8 years (1969-1976) were obtained. These data are presented for the republic as a whole and for groups of advanced farms.

Having available data on groups of advanced farms in dynamics (similarly as in the case with state strain testing plots), it is possible to perform a comparative analysis of the yield obtained by the entire set of farms in the republic with the yield attained in individual advanced groups.

Winter wheat yield trends on kolkhozes in the Moldavian SSR in 1969-1976 were calculated according to the singled out advanced groups of kolkhozes and the entire examined set (see table 2).

Similarly to the performed comparative analysis of sown production areas with the data of state strain testing plots in this case on the basis of the parameters of regression equations, on the average, obtained for the republic and for every singled out group of farms it is also possible to calculate the number of years in which the yield obtained in a specific group of advanced farms during the period under review will be attained on all the kolkhozes in the republic.

The numerical calculations performed for winter wheat showed that

$$t_1 = \frac{28 + 1.8 - 24.3}{1.5} = \frac{23.8 - 24.3}{1.5} = 4.6$$

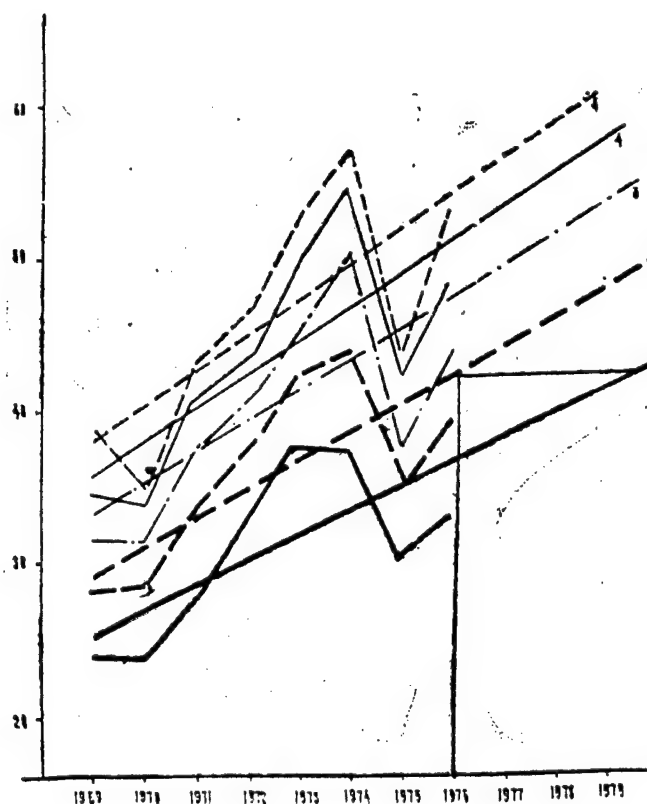
$$t_2 = 8 - \frac{36.3 - 28.0}{1.8} = \frac{8.3}{1.8} = 3.6$$

Thus, the winter wheat yield now obtained by the first group of farms will be attained by the entire set of farms in the republic in 3 to 5 years.



Table 2

Groups of Farms	Correlation coefficient (R)	Calculated yield at the beginning of the period ( $Q_0$ ) quintals per hectare	Annual increase in yield ( $Q_1$ ) quintals per hectare	Approximation error quintals per hectare	Fisher's criterion (F)
First	0.74	28.0	1.8	4.42	1.85
Second	0.73	31.1	2.0	4.89	1.85
Third	0.73	33.7	2.2	5.29	1.86
Fourth	0.75	35.8	2.3	5.42	1.98
On the average in the republic	0.67	24.3	1.5	4.40	1.57



1--average yield in the republic as a whole, 2--average yield in the first group of farms, 3--average yield in the second group of farms, 4--average yield in the third group of farms, 5--average yield in the fourth group of farms.

A comparative analysis of the actual data on the yield of winter wheat, on the average, obtained in the republic in 1977-1979 (34.4 quintals per hectare) shows the legitimacy of this conclusion (according to the calculations of the trend of advanced group I--34.4 quintals per hectare).

The basic advantage of the proposed methods of forecasting the yield lies in the fact that the envisaged long-term yield level is attained realistically and in the second case it is attained by quite a representative group of farms under production conditions. It is possible to study their experience, to determine the means and methods of attaining this goal and to study the factors contributing to the production of high harvests.

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## TILLING AND CROPPING TECHNOLOGY

### SOWING PERIODS FOR YAKUTIYA

Omsk ZEMLYA SIBIRSKAYA, DAL'NEVOSTOCHNAYA in Russian No 2, Feb 82 pp 15-16

/Article by G.I. Konyukhov, Ye.P. Tsvigun and V.A. Shestakova, junior scientific workers at YaNIISKh: "Sowing Periods for Yakutiya"/

/Text The tradition to sow early in Yakutiya was first introduced by Russian migrant-peasants and it was not disputed until the late 1940's. This was justified from the standpoint of the culture of farming and level of equipping which existed at that time. Under dry climate conditions and insufficient preparation of the soil, good grain crop seedlings can be obtained only with early sowings.

Since that time the scientific and technical base of farming has changed radically. But even today there are still agricultural workers throughout the republic who stress the need for early sowing periods for their field crops, despite the fact that numerous experiments and the experience of leading farms have proven this opinion to be wrong. Early sowings of grain crops often suffer from drought conditions and "burn up." The moisture supplies in the soil at the time of sowing are not sufficient for the formation of a satisfactory crop. The fate of the crop is then dependent upon the amount and timeliness of summer rainfall. Early sowings are usually badly contaminated by weeds. Actually, by the middle of May the average daily temperature of the air and the soil layer down to 10 centimeters does not exceed 5°, that is, it barely reaches the biological minimum temperature required for the commencement of growth even of plants which are not considered to be demanding with regard to warmth. During the second decade in May, the seed of weed plants do not germinate for all practical purposes and they cannot be destroyed by pre-sowing cultivation. Observations have shown that with normal soil moisture the great majority of the weeds appear in late May and the beginning of June.

On the average for a series of experiments carried out during the 1957-1959 period, the contamination by weeds of early (15-22 May) grain sowings was almost 8 times higher than that for late (4-7 June) sowings. The degree of contamination of sowings varies greatly depending upon the specific spring conditions.

At our institute, experiments on the sowing periods for grain crops were carried out during the 1957-1971 period (Korniyenko, 1966; Kornilov, 1978). During the first series of experiments (1957-1965), the pause between the early and late periods was established at 2 weeks in the interest of revealing more clearly the relationship between cropping power and the time of sowing. Depending upon the existing weather conditions, the early sowing period was from 15 to 26 May and the late --

1-8 June. During the second series of experiments (1966-1971), the pause between the sowing periods was reduced to 10 days: the first period -- 20-22 May and the second -- 30-31 May. A summary of the material obtained during all years of the study is furnished in the Table

Cropping Power of Grain Crops Depending Upon the Sowing Period,  
in quintals per hectare

Crop	Number of tests	Sowing Period		Increase	
		Early	Optimum	Quintals per hectare	In %
Barley	23	17.8	20.1	2.3	12.9
Oats	16	16.5	19.0	2.5	15.1
Wheat	18	15.7	17.1	1.4	8.9

In all, 57 tests were carried out based upon the sowing periods. It was apparent that the advantage of the optimum period (18.8 quintals) over the early one (16.8 quintals) amounted to an average of 2 quintals, or approximately 12 percent. And only during certain years do more favorable conditions prevail for early sowing. But even during years considered to be more favorable for sowings during the early period, the advantage possessed by such sowings over those carried out during later periods is not very great from a quantitative standpoint. The advantage possessed by optimum periods over earlier ones is considerably greater in many instances. For example, in 1954 the cropping power of barley following an early sowing was 11.2 and following a later sowing -- 23.7 quintals per hectare. For 1964 the figures were 9.4 and 17.3 quintals per hectare respectively.

The institute's Pokrovskoye OPKh experimental model farm long ago renounced the use of early sowings for grain crops. Over the past 10 years, the cropping power of grain crops on the average amounted to 15.4 quintals per hectare, more than twice as great as the republic's indicator.

Fears that the rejection of early sowing periods will bring about a deterioration in the quality of seed grain are indeed groundless. It has been proven that in central Yakutiya the germinative capacity of seed grown following an optimum sowing period differs very little from the germinative capacity of seed obtained from early sowings (Korniyenko, 1966; Kornilov, 1978). Yes and this is borne out by the experience of the Pokrovskoye OPKh (the only elite seed production farm in the republic), which usually completes its sowing of grain crops in late May and the beginning of June. As a rule, the farm copes successfully with its plan for producing seed for high reproductions.

When cultivating grain crops for green feed, the optimum periods include not just the late ones but also the summer (25 June - 5 July) sowing periods.

In regions of Western Siberia and Northern Kazakhstan which are similar to ours in terms of the distribution of summer precipitation, studies commenced approximately 20 years ago on summer sowings for forage crops (Kopyrin, Volkova, 1965). At our institute, tests were carried out during the 1957-1961 period on summer sowings of

oats for fodder (Korniienko, 1966) and we continued these tests in 1975-1978. On the average, over a period of 9 years, the cropping power of oats fodder (phase -- milky ripeness, moisture content -- approximately 70 percent) following a spring sowing amounted to 101 and following a summer sowing -- 130 quintals per hectare.

Factors which bring about an increase in cropping power are as follows:

As mentioned above, a delay of 10 days in carrying out a spring sowing serves to lower the weediness of grain plantings to a considerable degree. A summer sowing provides tremendous opportunities for the further removal of weeds from arable land, since in May and June the fields can be cultivated according to the type of clean fallow.

Moisture conditions are also better in the case of summer sowings. The amount of moisture required for the formation of a fodder crop consists of the water supplies in the soil during the sowing-to-seedling period and the precipitation which falls during the period required under our conditions for oats to achieve the phase of technical ripeness (commencement of grain formation), prior to the moment of harvesting for silage. Early sowings enter this phase after 50-55 days have elapsed, roughly by 20 July and summer sowings -- during the first decade in September, that is, 70 days following the sowing. The precipitation norm (according to data provided by the Pokrovsk Meteorological Station) during June and the first two decades in July -- 61 and during July, August and the first decade in September -- 96 millimeters.

With timely and high quality tilling of the soil and a summer sowing of oats, the moisture supplies in the root-inhabiting layer of soil change very little during the month of June. According to the data obtained from nine tests carried out during the 1975-1980 period on a permanent plot (predecessor arrangement -- grain crops), the one-half meter layer of soil contained productive moisture as follows: at the end of May and the beginning of June 79 and 30-40 days later, that is, during the sowing-to-seedling period for a summer sowing -- 69 millimeters. On the average, the possible moisture level for an early sowing of oats is 140 and for a summer sowing -- 165 millimeters. Moreover, during the periods of greatest growth in the plant fodder, the conditions which determine the total amount of moisture consumption (air temperature and deficiency in saturation of air by water vapors) are less severe for a summer sowing.

In Yakutiya, grain crops being used as stubble predecessor crops suffer not only from weediness and a deficit of moisture but also from a shortage of elements of mineral nutrition, especially nitrogen in the nitrate form.

During the 1975-1980 experiments mentioned above, the nitrate content in the soil was determined simultaneously with the moisture content. During the sowing-to-seedling period, the content in the 0-40 cm layer was as follows: for a summer sowing -- 1.00 milligram per 100 grams of dry soil and for an early sowing -- 0.52 milligrams, that is, 50 and 26 kilograms per hectare respectively. With the conversion over to summer sowing periods for forage crops, this makes it possible to realize a considerable reduction in mineral fertilizer expenditures.

In addition to a purely agronomic effect, a summer sowing period for oats for fodder also offers a number of advantages of an organizational nature. A definite degree of relaxation is created during certain tense periods. For example, the

soil preparation and sowing work is carried out in June, at which time the spring sowing has been completed and haying operations have not yet commenced. The fodder obtained from a summer sowing of oats is harvested in September, following completion of the principal work volume out on the meadows. Moreover, the harvesting process itself and the ensiling of the bulk are carried out during a calmer atmosphere and can be completed in a high quality manner using less resources.

Actually, the oats fodder obtained from an early sowing is ready for use during the third decade in July and must be harvested quickly. The ripening process takes place very rapidly during this period and quite often the republic's sovkhoses ensile semi-dry bulk that is almost straw. Summer sowings of oats reach the phase of technical ripeness for harvesting for silage in September. Owing to a shortage of warmth, they are unable to ripen and thereafter we must patiently wait until we can lay in the silage.

Our studies carried out in 1965-1967 have shown that the agricultural practices employed for sunflowers for silage should ideally be developed in line with the above principle. Rather than sowing the sunflowers in the spring using the wide-row method, they should be sown during the summer, roughly during the period 15-20 June, using the continuous row method. The sowing is carried out using conventional grain sowing machines, with the sowing norm being increased to 35.40 kilograms per hectare. The tending of the crop consists of packing the soil following sowing and pre-seedling harrowing.

By harvest time, the plants have attained a height of 1-1.5 meters and they are easily cut down using various types of mowing and crushing machines. In the majority of instances the cropping power for the bulk is higher and the quality is better than the results obtained from a spring sowing using the wide-row sowing method. During our experiments, the advantage in terms of cropping power amounted to an average of 27 percent (256 compared to 201 quintals per hectare). The sunflower plants obtained from a summer sowing contain less cellulose, more protein and ash elements and the ratio between the phosphorus and calcium is close to optimum.

The new technology for growing sunflowers for silage is reflected in the appropriate recommendations and it is being mastered under production conditions. The experiments have shown that summer sowing periods are acceptable for field kale, mallow and other forage crops.

When converting over to the optimum sowing periods for agricultural crops, one or two additional tillings of the soil should be carried out.

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## TILLING AND CROPPING TECHNOLOGY

### SOWING PERIODS, SPRING BARLEY YIELDS IN KIRGHIZ SSR

Frunze SEL'SKOYE KHOZYAYSTVO KIRGIZII in Russian No 3, Mar 82 p 20

/Article/ by A. Alybekov, Candidate of agricultural sciences and S. Sultanova and B. Toktoraliyev, workers at the Naryn support point of KirgNPOZ: "Sowing Periods and Cropping Power of Spring Barley"/

/Text/ In the Tyan'-Shan' region, one of the chief measures in a complex of measures aimed at obtaining high and stable barley yields is that of the timeliness of the sowing of this crop. This problem has been studied for the very first time in this region.

Field experiments were carried out in 1976-1979 on irrigated lands of the Naryn support point of KirgNPOZ. The soils were light brown, the humus content 1.2-1.7 percent and the mechanical composition of the soil -- medium and heavy clayey loam. The test plot was located at a height of 2,036 meters above sea level. The variants: I -- early spring sowing (first half of April); II -- spring sowing (15-25 April); III -- late spring sowing (1-10 May).

The sowing periods were studied against a background of fall plowing carried out to a depth of 25-27 centimeters using a conventional plow. N<sub>45</sub>P<sub>60</sub> fertilizer was applied at the time of the principal cultivation. Nutans 45 spring barley was sown using a sowing norm of 5 million germinative seed per hectare. The calculation area of the plot was 100 square meters and the replication of the test -- fourfold. It was established that the sowing periods exert a considerable influence on the field germinative rate of the seed (see Table 1). It is apparent from the data furnished in Table 1 that the highest field germinative rate for the barley seed was achieved with the early spring sowing period.

TABLE 1

TABLE 1

Effect of Sowing Periods on Field Germinative Rate of Spring Barley Seed  
(average for 4 years)

Variants	Seed Sown, number per square meter	Seed germinated, number per square meter	Field germinative rate, in %
I	500	401	80.6
II	500	387	77.8
III	500	367	73.8



TABLE 2

Effect of Sowing Periods on Growth and Accumulation of Above-Ground Barley Bulk  
(average for 4 years)

Variants	Height of Plants (cm) During Phases				Accumulation of Above-Ground Bulk During Periods			
	Tillering	Shooting	Heading	Complete ripeness	Shoots, tillering	Tillering, shooting	Shooting, tillering	Heading, complete ripeness
I	25.7	33.9	74.9	76.8	30.1	86.2	218.0	245.2
II	20.8	32.4	71.8	74.0	27.4	66.7	191.0	202.7
III	17.6	27.9	63.5	67.3	26.6	59.0	168.0	191.8

The studies established the fact that the different sowing periods exert a considerable effect on the growth and accumulation of above-ground barley (see Table 2). It is apparent from the data in the Table that under the high-mountain conditions found in the central Tyan'-Shan' region, barley reaches its greatest height (76.8 cm) following an early spring sowing. For the later sowing periods, the height was 67.3-74.0 centimeters.

Prior to complete ripeness, the weight of the above-ground bulk of 100 plants was 53.4 and 42.5 grams more respectively than the two remaining variants

The sowing periods exert a substantial effect on the cropping power of spring barley. On the average, for the years in which the experiment was conducted, the first variant produced 35.7 quintals per hectare, the second -- 30.8 and the third -- 29.6 quintals per hectare

Thus, under the conditions which prevail in the central Tyan'-Shan' region, the best sowing period for spring barley is the early spring period (in an emergency -- the spring period). It promotes the development of high and stable yields for one of the most valuable grain forage crops.

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